

THE
CRITICAL REVIEW.

For NOVEMBER, 1786.

The Plays of William Shakespeare. With the Corrections and Illustrations of various Commentators; to which are added, Notes by Samuel Johnson and George Steevens. The Third Edition, revised and augmented by the Editor of Dodsley's Collection of Old Plays. 8vo. 10 Vols. 3l. 10s. Bathurst, &c.

THE nation that can boast of a Shakspeare may be allowed to be enthusiastic in their admiration of his genius, and zealous in their attempts to illustrate his works. It is difficult to fix bounds to an error so pleasing; for the mind, warmed with his splendour, will be exuberant in its commendation; and the step is easy from an eager fondness to indiscriminate idolatry. Time only leads us to distinguish the errors of our favourite, and the time is nearly now arrived when we are enabled coolly to examine; to perceive occasional faults, without suffering them to obscure his excellencies; and, in turn, to admire his beauties, without being blinded by their brilliancy from detecting his imperfections. These united causes have probably occasioned the numerous editions which we have received, and are still expecting. We have not yet seen any that we can fully approve of; and, while we are enquiring into the sources of the error by which the former editors have been misled, we shall be enabled to explain what they ought to have done.

It was for some time believed, that Shakspeare was not only correct and intelligible in every instance, but that he was acutely elegant, and furnished with every kind of polite learning, as well as every abstruser science. The faults were supposed to be those of the copyist. This was a pleasing path for a man of learning and ingenuity. Every science, every language, that could furnish a coincident sound, contributed its stores to illustrate the child of nature only. Had Warburton been less of a literary tyrant, he might yet have been the favourite commentator; but his borrowed plumes were stripped off by degrees by Theobald, by Farmer, and by

Tyrwhit. They taught us to look at the authors that Shakespeare had certainly read, and we found his supposed mines of learning had only the glitter of the nobler metals, without their weight. Mr. Steevens came forward with a larger store of cotemporary learning, which he had collected with care, and employed with success. He assisted Dr. Johnson, who had already employed his vast strength of mind, his copious yet comprehensive stores of varied literature, in the humbler province of an editor. It had certainly occurred to the different commentators, that the real text of Shakspeare should be ascertained with precision, because they all speak of collations, and had sometimes really made them. In reality, however, except in Mr. Steevens' publication of the quartos, frequently pirated from the play-house copies, we had no proper and correct collations. One of the ablest annotators on Warburton, actually wrote his octavo volume without looking at them, when both the first and second folios were almost within his reach. The inattention of Johnson, who, like a giant, trusted to his own resources, because conscious of his great power, seems to have affected his colleague, for many emendations from the older copies are suggested in the notes, which render the passage clear and intelligible, though the text remains in all its original obscurity. Yet Johnson could wish that we had corrected more and explained less. Mr. Malone was more attentive in his collations, and many fortunate recoveries occurred in his Supplement, chiefly from the folios, whose comparative merit we have already examined, in our review of 'Remarks on the last Edition of Shakspeare.' There have also been many inferior labourers, literary pioneers, whose utility is acknowledged though their fame is inconsiderable; who have restored different readings from the folios, which are easily understood, and consequently should not be converted, by any contortion, into beauties. It will be obvious, that we wish for the real text of the author, clear and unmutilated. Where an error of the press is evident, and the alteration of a single letter will at once elucidate a doubtful or an unintelligible passage, it may be allowed; but even this licence should be sparingly used: where the construction is faulty, as we often find it, when Shakspeare aims at learning, elegance, or rhetoric, it should be explained in a note. Uncertain meanings should be remarked with care, and old terms elucidated in a few words, and sometimes illustrated with a quotation; though this liberty should be seldom allowed where it is possible otherwise to ascertain the sense. In many of these respects, the edition before us is amended. The corrections are more frequent: the text, though faulty, has still fewer deviations from the original copies than in the former editions; and

and the quotations are often abridged. There is still farther room for retrenchment. In every view, however, this edition is the best that we have seen. We must now mention its particular merits. We shall select Mr. Reed's own words.

' As some alterations have been made in the present edition, it may be thought necessary to point them out. These are of two kinds, additions and omissions. The additions are such as have been supplied by the last editor, and the principal of the living commentators. To mention these assistances, is sufficient to excite expectation; but to speak any thing in their praise will be superfluous to those who are acquainted with their former labours. Some remarks are also added from new commentators, and some notices extracted from books which have been published in the course of a few years past.'

' Of the omissions, the most important are some notes which have been demonstrated to be ill founded, and some which were supposed to add to the size of the volumes without increasing their value. It may probably have happened that a few are rejected which ought to have been retained; and in that case the present editor, who has been the occasion of their removal, will feel some concern from the injustice of his proceeding. He is, however, inclined to believe that what he has omitted will be pardoned by the reader; and that the liberty which he has taken, will not be thought to have been licentiously indulged. In all events, that the censure may fall where it ought, he desires it to be understood that no person is answerable for any of these innovations but himself.'

Mr. Malone's supplemental volumes, so far as they relate to the plays, with only one exception, are incorporated into this edition. The introductory parts are prefixed, and the notes inserted in their proper places: an extensive but curious and entertaining description of the ancient theatres is omitted. The other parts of Mr. Steevens' introduction are also preserved, with the list of editions, commendatory poems, and the vast farrago, which a venerable classic editor would think necessary. In this respect, we own ourselves partial, and wish not to lose any part of this varied and pleasing entertainment.

The various notes are pretty well known. A few only belong to the editor, and some of these we shall occasionally mention. It is not our intention to add to the numerous annotations, but shall remark a few circumstances, which have occurred to us in a pretty careful perusal of this new edition. In the first play, Prospero tells Caliban, in the denunciation of his punishments, that

‘Urchins
Shall for that vast of night, when they may work,
All exercise upon thee.’

Not to make any remark on the useless learning displayed in explaining *vast*, which is certainly an amplification only, to render the punishment more dreadful,—that vastly extensive season, when they are allowed to work; we may remark, that Shakspeare never uses *urchin* as sea hedge-hog, and that the *echinus* is an animal so harmless when the shell appears on land, as to do no injury. He certainly meant fairies, and, in every passage where the word occurs, the meaning is the same. Caliban, in a subsequent passage, speaks of ‘*urchin shows*;’ and, in the same speech, uses the word *hedge-hogs*. In the *Merry Wives of Windsor*, p. 372, *urchin* is used in the same sense. If it be alleged that, in the passage last referred to, it is opposed to fairies, the same may be alleged of ‘*ouphs*:’ perhaps there were different ranks in the mythology of these little useful reformers; *ouphs* and fairies are, however, used most commonly without discrimination. Mr. Steevens having explained *urchin* by *hedge-hog*, though he suggests that it may *perhaps* mean fairy, is obliged, in support of it to allege, that from *hedge-hog* every thing little had the same name; but the *urchin* is not remarkably diminutive; and its size varies more perhaps than that of any other species. We may just suggest that, in the same speech in the *Merry Wives of Windsor*, *diffused* may be easily mistaken for *disused*, if spelt with a double *ff* (*diffused* and *disused*), and may then be easily understood for obsolete.

In a former article we remarked, that in a speech of Caliban’s, to take young scammels from the rocks, it had been suggested that the word required no alteration, since an American ship was called the *Scammel* in the news-papers; but, on comparing every part of the evidence, there is reason to think both to be press errors, for *sea-malls*. There is a quotation, however, from a history of France, published in 1592, suggested by Mr. Henderson, where *camels* are said to be bred in the *mountains* of France. This seems still farther from the mark. We mention this passage to observe, that Mr. Henderson’s annotations are chiefly quotations from books of Shakspeare’s period; but we have not met with any very new, striking illustrations from this source. One of Mr. Reed’s notes belongs to this passage, and we shall consequently insert it.

‘Mr. Holt’s assertion will receive some support from Cotgrave’s Dictionary, where the *wore chame*, is explained to be a kind of cockle or round shell. I have, however, no doubt but Theobald’s proposed amendment ought to be received. Sir Joseph Banks informs me, that in Willughby’s, or rather John Ray’s, Ornithology, p. 34, N° 3, is mentioned the common sea-mall, *larus cinereus minor*; and that young sea-gulls have been esteemed a delicate food in this country, we learn from

from Plott, who, in his History of Staffordshire, p. 231, gives an account of the mode of taking a species of gulls, called in that country pewits, with a plate annexed, at the end of which he writes “they being accounted a good dish at the most plentiful tables.” To this it may be added, that sir Robert Sibbald, in his Ancient State of the Shire of Fife, mentions, amongst fowls which frequent a neighbouring island, several sorts of sea-malls, and one in particular, the katicwake, a fowl of the larus or mall kind, of the bigness of an ordinary pigeon, which some hold, says he, to be as savoury and as good meat as a partridge is.’

The speeches in the Mask, presented by Prospero, in the Tempest, are filled with words, seemingly, by design, obsolete. It has been remarked, with little foundation, that Shakspeare formed a new being in Caliban, and gave him a new language. It is more probable that he wished to raise the language of Iris, Ceres, &c. above the usual standard. *Stover* is not yet properly explained; and is one of those words to which we would allow a number of quotations. *To stover*, is still used in the West, instead of *raise erect*, and is plainly the meaning of the word, in Love’s Sacrifice; but this explanation cannot be allowed in the passage quoted from Drayton. From the context it probably means *a turf*, whose tender herbage is fit for sheep, and whose compact texture renders it a proper covering for hovels. Both in Scotland and Ireland, turf is not an uncommon covering for the lowest huts. In the next line we certainly may approach more nearly to the meaning of Shakspeare than has been yet done.

‘Thy bank with pinioned and *twilled* brims.’

The word which we have distinguished has puzzled all the commentators. Those who have conjectured most dexterously, have substituted *liled*. The Linden tree is called by Philemon Holland, in his translation of Pliny, *tillet* (Plin. lib. xxiv. Translation vol. ii. p. 185); and, in the old way of forming adjectives, *tilled* for *tilleted*, may be reasonably allowed. Pliny says it was used as a sedative; and old Gerard tells us that it cures inflammations, sore mouths, &c. (Gerad’s Herbal, ed. 1633. p. 1484), while every one knows that it flourishes best in a damp soil.

If we were to write a commentary, this Mask would engage much of our attention; but we must afford as great a variety as we can; so that we shall only remark, that Mr. Steevens has not displayed his usual accuracy in interpreting *bosky* by *woody*. Ceres says ‘*my bosky acres*:’ are woody acres adapted for corn? Mr. Steevens has added another quotation, ‘*bosky wood*,’ which is a trifling tautology, if his explanation be allowed.

allowed. It evidently means swelling, and is still used in that sense in the North. We have explained it in our account of Mr. Bryant's work on the subject of Chatterton's poems.

The Two Gentlemen of Verona is less disfigured by the errors of transcribers or printers than any other play of our author's. It keeps a more even tenor, and while it often rises to excellence, it very frequently sinks to ribaldry or nonsense: punning must be excepted from vices when we speak of Shakspeare; for it is the shadow for which he often loses the substance. In more than one passage of this play we see the commentators at a loss, when substituting *at* for *to* would explain the whole. This error is still frequent in the West, where they say when I was *to*—: this always confounds them in speaking of places. Another provincial phrase has been also greatly mistaken.

‘Julia. I see you have a month’s mind to them.’

The different editors have luckily found, in the Romish rituals, a month’s mind, and a week’s mind: their long note is, however, of no importance: a month’s mind, is a longing inclination; and a mind signifies commonly a desire. The month may imply either a continuance of the longing, or may allude to the fanciful desires of pregnant women.

‘Oh how this spring of love resembleth

Th’ uncertain glory of an April day.’

Among the novelties which we find in the edition before us, is Mr. Tyrwhit’s Answer to the author of the Remarks. They are more dear to us, from the recent loss of that very estimable man, whom we would attempt to praise, if we could find language adequate to his worth. We shall select the whole.

‘*Resembleth* is here used as a quadrisyllable, as it was written *resembleth*. See Com. of Errors, act v. scene the last.

“And these two Dromios, one in semblance.”

As you like it, act ii. sc. 2.

“The parts and graces of the wrestler.”

‘And it should be observed, that Shakspeare takes the same liberty with many other words, in which *l* or *r* are subjoined to another consonant. See Com. of Errors, next verse but one to that cited above:

“These are the parents to these children.”

where some editors, being unnecessarily alarmed for the metre, have endeavoured to help it by a word of their own.

“These plainly are the parents to these children.”

Tyrwhitt.

‘Thus much I had thought sufficient to say upon this point in the former edition. Since which the author of Remarks, &c. on that edition has been pleased to assert, p. 7, that Shakspeare does

does not appear, “from the above instances at least, to have taken the smallest liberty in extending his words: neither has the incident of *l* or *r* being subjoined to another consonant, anything to do in the matter.” The truth is, he goes on to say, “that every verb in the English language gains an additional syllable by its termination in *est*, *eth*, *ed*, *ing*, or (when formed into a substantive) in *er*; and the above words, when rightly printed, are not only unexceptionable, but just. Thus *resemble*, makes *resemble-eth*; *wrestle*, *wrestle-er*; and *settle*, *whistle*, *sickle*, make *settele*, *whistle-ed*, *sickle-ed*.”

As to this supposed canon of the English language, it would be easy to show that it is quite fanciful and unfounded; and what he calls the right method of printing the above words, is such as I believe, was never adopted before by any mortal in writing them, nor can be followed in the pronunciation of them without the help of an entirely new system of spelling. But any farther discussion of this matter is unnecessary; because the hypothesis, though allowed in its utmost extent, will not prove either of the points to which it is applied. It will neither prove that Shakspeare has not taken a liberty in extending certain words, nor that he has not taken that liberty chiefly with certain words in which *l* or *r* is subjoined to another consonant. The following are all instances of nouns, substantive or adjective, which can receive no support from the supposed canon. That Shakspeare has taken a liberty in extending these words is evident from the consideration, that the same words are more frequently used by his contemporaries, and by himself, without the additional syllable. Why he has taken this liberty with words in which *l* or *r* is subjoined to another consonant, must be obvious to every one who can pronounce the language.

‘*Country*, trisyllable.

Twelfth Night, act i. sc. 2. The like of him. Know'st thou this country?

Coriolanus, act i. sc. 3. Die nobly for their country than one.

‘*Remembrance*, quadrisyllable.

Twelfth Night, act i. sc. 1. And lasting in her sad remembrance.

Winter's Tale, act iv. sc. 4. Grace and remembrance be to you both.

‘*Angry*, trisyllable.

Timon of Athens, act iii. sc. 5. But who is man, that is not angry.

‘*Henry*, trisyllable.

Richard III. act ii. sc. 3. So stood the state when Henry the Sixth.

2 Henry VI. act ii. sc. 2. Crown'd by the name of Henry the Fourth.

‘*Monstrous*, trisyllable.

Macbeth, act iv. sc. 6. Who cannot want the thought how monstrous.

Othello, act ii. sc. 3. 'Tis monstrous, Iago, who began it?

‘Assembly, quadrisyllable.

Much ado about Nothing, act v. scene last. Good morrow to this fair assembly.

‘Douglas, trisyllable.

1 Henry IV. act v. sc. 2. Lord Douglas go you and tell him so.

‘England, trisyllable.

Richard II. act iv. sc. 1. Then Bolingbroke return to England.

‘Humbler, trisyllable.

1 Henry VI. act iv. sc. 1. Methinks his lordship should be humbler.

‘Nobler, trisyllable.

Coriolanus, act iii. sc. 2. You do the nobler. Cor. I muse my mother. Tyrwhitt.’

What could induce Mr. Reed to preserve Warburton’s note on the following line,

‘For Orpheus’ lute was strung with poets sinews?’

In this passage, the learned commentator makes Orpheus’ lute his system of laws. If Warburton had not been resolved to dive into the well in search of truth, he would have seen, that it only implied the union of poetry and music, which the context supports.

Again. Sudden quips, Johnson tells us, are ‘hasty passionate reproaches.’ This note is preserved, though another of Mr. Malone’s is added, from Dr. Wilson’s Art of Rhetoric, ‘and make him at his wits end, through the sudden quip.’ Both cannot be right; but we find quips used by Milton with cranks and wanton wiles. Falstaff says, when his bragging follower puns on his words, no quips now Pistol.’ Are these sudden reproaches, or are not all the speeches to be explained in the same way? This is one of the greatest faults which we perceive in this edition, viz. preserving, from a superstitious veneration for great names, notes which are either false, futile, or contradictory. If it be alleged that this is Johnson’s edition, republished, the blame will then lie with those who chose this form of collecting a variorum edition, instead of one where every observation inserted should have some claim to distinction from its own merit. We shall select but one instance more of this kind.

Mrs. Quickly, after Mrs. Page is gone, says to Fenton. ‘This is my doing now; nay, said I, will you cast away your child *on a fool and a physician?*’ Several notes are added to this passage, which wants not an explanation. This silly gossip, who pretends to assist the three candidates, relates now what she said to Mrs. Page, who was as averse to Slender as to Fenton. She was the advocate of the doctor, and, against him only the attack was levelled. Johnson’s and Hanmer’s alter-

alterations are useless ; and the other notes are of little consequence : Dr. Caius was both a fool and a physician.—We shall conclude this article with an additional note on a trifling passage indeed, but which has been rendered important by the labours of sir William Blackstone and Mr. Steevens.

‘ *Sbal.* He will maintain you like a gentlewoman.

‘ *Slen.* Aye, that I will, *come cut and long tail*, under the degree of a squire.’

‘ Whenever the words (*come cut and long tail*) occur, they always bear the same meaning, and that meaning is obvious enough without any explanation. The origin of the phrase may, however, admit of some dispute, and it is by no means certain that the account of it, here adopted by Mr. Steevens from Dr. Johnson, is well-founded. That there ever excited such a mode of disqualifying dogs by the laws of the forest as is here asserted, cannot be acknowledged without evidence, and no authority is quoted to prove that such a custom at any time prevailed. The writers on this subject are totally silent as far as they have come to my knowledge. Manhood, who wrote on the Forest-laws, before they were entirely disused, mentions expeditation, or cutting off three claws of the forefoot, as the only manner of lawing dogs ; and with his account the Charter of the Forest seems to agree. Were I to offer a conjecture, I should suppose that the phrase, originally referred to horses, which might be denominated *cut and long tail*, as they were curtailed of this part of their bodies, or allowed to enjoy its full growth ; and this might be practised according to the difference of their value, or the uses to which they were put. In this view, *cut and long tail* would include the whole species of horses good and bad. In support of this opinion it may be added, that formerly a cut was a word of reproach in vulgar colloquial abuse, and I believe is never to be found applied to horses but to those of the worst kind. After all, if any authority can be produced to countenance Dr. Johnson’s explanation, I shall be very ready to retract every thing that is here said. See also note on the Match at Mid-night, Dodoley’s Collection of Old Plays, vol. vii. p. 424, edit. 1780.

‘ The last conversation I had the honour to enjoy with sir William Blackstone was on this subject ; and by a series of accurate references to the whole collection of ancient Forest Laws he convinced me of our repeated error, expeditation and genufction, being the only established and technical modes ever used for disabling the canine species. Part of the tails of spaniels indeed, are generally cut off (*ornamenti gratia*) while they are puppies, so that (admitting a loose description) every kind of dog is comprehended in the phrase of *cut and long tail*, and every rank of people in the same expression, if metaphorically used. Steevens.’

[*To be continued.*]

A History of the Discoveries and Voyages made in the North. Translated from the German of John Reinbold Forster. Illustrated with New and Original Maps. 4to. 1l. 1s. in Boards.

Robinson.

MR. FORSTER'S reputation, as a naturalist, is well established; and it may at the same time be acknowledg'd, that he is an intelligent historian, and an able geographer. So much we may allow; but the translator's zeal carries him too far, when he contends, that an historian could not be found fitter to record the *northern discoveries*, than a man who had sailed so far to the *south*. We cannot either allow this work to be equal 'in profundity of reflection and philosophical investigation, or superior with respect to accuracy and extent of information,' to the abbé Raynal's *History of the European Settlements*. This is injudicious praise; and we wonder at it from a man who is a good judge of the work, who has translated it with ability and success, and corrected his author, in some instances, by very useful notes. Mr. Forster's work is commendable as an accurate compilation, executed with very great labour, from authentic sources, and from authors who are now scarcely read, or can seldom be found. Its correctness, so far as he follows his guides, is unimpeachable; but some of these give erroneous accounts, without Mr. Forster's detection; and he fails both in profundity of reflection, and philosophical investigation. Indeed were his abilities in this respect greater, the compiler, from printed works, could not be compared, with propriety, to an historian, whose sources were uncertain, and whose information was so precarious, that he was obliged to examine, compare, and combine repeatedly, before he could arrive near the truth. Yet, from his attention to facts, and their connection, his work is a vast fund of geographical knowledge, which we should have blamed him for having given in the unconnected form of successive discoveries, if the separated parts were not combined by an accurate and complete Index.

This compilation of different voyages is introduced by some remarks on the great progress of navigation, and the perfection to which shipping is at present brought. Mr. Forster also introduces Montesquieu's observation, that 'countries are now discovered by voyages on the sea, but that formerly the sea was discovered by the conquest of countries.' Our author seems inclined to combat it; but, if such was his intention, he has failed, for all his observations tend to confirm it. Montesquieu was sometimes fanciful, but an immature undigested thought seldom escaped him: many have endeavoured to oppose

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pose his opinions, who were not capable of understanding them.

The work commences by an Account of the Voyages and Discoveries made by the Phœnicians. Mr. Forster walks with confidence in the most obscure ways, and often decides on points little known. In the more ancient parts of his history there is one leading feature which, in our opinion, destroys the likeness. He describes the voyages of the earliest navigators on a globe, in its present state, without considering the numerous changes which, since that time, it must have undergone, particularly on the western coasts of Great Britain and Ireland. He supposes the British Channel pervious at the straits, because at present they are so; and fixes the Thule at the Shetland islands, though there is every reason to think that, at no very remote period, these were connected with Britain. Again, he conducts the Phœnicians round the Cape of Good Hope, from no other evidence than their acquaintance with India; yet he fixes their original station on the Red Sea, where there is so ready a communication with this country through the Persian gulf, which we have reason to think, from the state of those countries, was always connected with this sea, and where we have marks of retiring, rather than encroaching waters. Surely the same mercantile spirit which carried the Phœnicians through the Mediterranean on the one hand, would lead them down the Red Sea on the other. If these be marks of profound reflection and philosophical investigation, we are yet acquainted only with their names. As our author rests so strongly on Gesner's *Prælections*, and Schlozer's *General History of Commerce*, we should have been glad, if it had only been to gratify an idle curiosity, to have seen the arguments by which they proved, almost to a demonstration, these strange positions. Mr. Forster's mode of reasoning we shall carefully preserve: if his oracles succeed no better, we think he has acted wisely in concealing their demonstrations.

* The land of Ophir is, in my opinion, the same with that which was otherwise called Africa. The Phœnicians, sent out for the purpose by the Egyptian king and conqueror Sesostris, and his father Pamaisis or Amasis I. gradually discovered, together with the Egyptians who were joined with them, the coasts of all Africa: hence we meet with such admirable, and, in fact, comprehensive accounts of the natives of Africa so early as in Moses's time, in the tenth book of Genesis. Now gold and other precious commodities being found in many parts of Africa, this newly discovered country became celebrated and got a great name: and this in the Egyptian language is *Ov-Φιρι*, and, with the addition of the word *καί*, which signifies a country, *Ov-Φιρι-καί*, (i. e. the celebrated country) *Ophiri* and *Ophirah*.

rikah. The third epocha of the circumnavigation of Africa fell in the time of Solomon, nearly 500 years later. Three hundred and eighty years after this Necho gave orders for the circumnavigation of Africa to be performed ; and in the reign of Euergetes II. one Eudoxus sailed once more round Africa, which is 450 years later than the voyage of Necho : and yet in Strabo's time many people doubted of the possibility of making the tour of Africa by sea.'

When the author describes the discoveries of the Grecians, he of course speaks of the famous Greek navigator Pytheas, who very clearly describes Iceland under the name of Thule, if we suppose, what is very probable, that the sea, in these northern regions, has encroached on the land, and separated from the continent the islands now called Shetland. The great force of the argument, that the Phœnicians had ever reached these regions, rests on the following facts.

' The information he gives us on this subject is as follows : " on the shores of a certain bay (Aestuarium or Firth) called Mentonomon, lives a people called Guttoni, and at the distance of a day's voyage from thence is the island Abalus, (called by Timæus Baltia) upon this the waves throw the amber, which is a coagulated matter cast up by the sea ; they use it for firing instead of wood, and also sell it to the neighbouring Teutones." All this is as exact as it is possible for it to be ; for upwards of one thousand seven hundred years after, we find traces of the truth of this ; the provinces of Nadrauen and Schalavonia are to this very day called Gudde, and their inhabitants Guddai, in the Lithuanian tongue of the Sudavians, Galindians, and Natangians. The bay is the frish and curish haf, or sea. It is from 8 to 16 miles wide, and this used to be a short day's trip, consequently the opposite island or islands, were on the very same spot where they are now. The name of Mentonomon signifies the promontory of pine-trees, (mendaniemi) and in fact on both peninsulas or necks of land here, we find large forests of these trees. The spot on Samland, where the amber was cast most plentifully on the shore, bore, so late as in the time of the Cursades, the name of Wittland, or Wittlande's Ort, i. e. whiteland ; now this in the Lithuanian tongue is Baltikka, from Baltos, i. e. white ; and therefore I should prefer reading in Pliny, Abaltica, or Baltia, instead of Abalus. Neither was it customary with the inhabitants to burn amber instead of wood, but only to set it on fire, probably by way of fumigation or perfume ; and they sold it to those Teutones or Germans that lived nearest to them.'

We think it exceedingly evident, from this very passage, that the whole description was not copied from the mouth of an actual observer, but was derived from an uncertain traditional rumour. A bay, an island, described so generally, and distin-

distinguished by names so common and indiscriminate, would suit many other parts of the Baltic as well as that which it is intended to be pointed out. That Pytheas should go to this part of the globe directly, in consequence of description only, is not surprising, since astronomy and navigation had made a great progress ; that the Phœnicians should reach it in their coasting navigations, if we consider the whole route, and the many impediments they must have met with, unless they had found their way by the straits of Dover, which probably did not exist in their time, is so very improbable, that it deserves not a moment's regard. Yet it is pretty clear, that they received their amber from the Baltic ; and we must next account for its appearance in these southern countries, which may be easily done, without referring to the extensive and extraordinary voyages of the Phœnicians. Our author tells us, in the quotation just transcribed, that the inhabitants of the Baltic sold it to the Teutones or Germans ; and that it was known to come down the Raduhn, which was either called Eridanus the Po, or Rhodanus the Rhone. In fact it came from both, but chiefly from the Po. If Mr. Forster had looked a little farther into Pliny he would have found that, before it reached the Po, it was carried by the Germans into Pannonia, which formerly included a great part of the western side of Germany, and from thence reached the Venetians. Pliny's words are in the third chapter of the thirty-seventh book. ' Assertur a Germanis in Pannoniam maxime provinciam : inde Veneti pri-mum, quos Græci Henetos vocant, rei famam fecere, proximi Pannoniae, id accipientes circa mare Adriaticum.' That this was the real original source of the amber, is evinced by the fabulous story of Phaeton and his sisters weeping amber on the banks of the Po ; and from this it is also evident, that the ancient Pannonia contained a larger territory than Hungary at present, which is its more modern name. It is not improbable that it reached also the Rhone, from some other parts of the German shores ; from whence it may have been distributed by the Phœnicians, and have been supposed to have originally come from the neighbourhood of Spain.

Mr. Forster next examines the Discoveries of the Romans in the North ; and in this part mentions the subsequent passage in Pliny to that which we have quoted. We were somewhat surprised at our author's supposing that Pliny was really unacquainted with the amber coast, when the great accuracy of his descriptions is so ostentatiously pointed out in the quotation from Pytheas. If then the former praises had any meaning, it is, that Pliny describes a place very properly, though he knew not where it was. In other respects, Mr. Forster informs

forms us, very correctly, of the extent of the Roman conquests, which, according to the general principle of Montesquieu, was the source of their discoveries; and every passage of this chapter is a striking commentary on the justness of that author's opinion.

The Discoveries of the Arabians in the North are compiled with great care; and incredible labour is bestowed in connecting the ancient with the modern names. Some of these connections depend too much on similar sounds; but they are generally supported by the testimony of historians, and the situation of the places. From the similarity of names Mr. Forster derives an additional proof that the Black and the Caspian Seas were once united: Mr. Pallas was of the same opinion, from the appearance of the country, as we already stated, in our review of M. Buffon's supplemental volume. The knowledge of the Arabians, respecting the northern coasts, were said to be very imperfect, but Kublai Khan fitted out a fleet from the Chinese sea, in order to conquer Nipon; and this fleet was scattered by storms. Our author's hint deserves great attention. He seems to mean it as a hint only, because he includes it in a note. We shall probably apply it to explain some facts, which he seems not at the moment to have reflected on; but we must first transcribe the passage.

Kublai Khan reigned from the year 1259 to 1294 of the Christian era, when he sent a fleet and army to Nipon (or Japan), for the purpose of conquering that country. The ships composing this fleet, were very much shattered by the storm, and it is probable that some of them may not have been able to get back to Japan and China. About this period there sprung up in America, almost at one and the same time, two great empires (those of Mexico and Peru) which had regular institutes of religion; notions of rank and subordination, were in some measure civilized, were connected with each other by various kinds of association, practised agriculture, and in the matrimonial state did not allow of polygamy. In Mexico, indeed, they even had a kind of hieroglyphic writing, together with many other marks of cultivation; notwithstanding that both these empires are surrounded on all sides by savage and rude nations very inconsiderable in point of extent, and are besides at a distance from each other. Now all this favours the supposition, that these two colonies came thither by sea, in the twelfth and thirteenth centuries; perhaps they are some of the people that were lost in the expedition to Japan, their ships having been driven by the storm to America.'

It is obvious, that the remains of a scattered fleet, at the end of the thirteenth century, could scarcely, at the end of the fifteenth, have become two powerful nations, very

very numerous and extensive: besides, in that short interval, they should not have lost all memory of their origin. The Mexicans and Peruvians were probably derived from different sources; for their dress, their ornaments, their religion, and their general customs, were materially different. The former preserved no memorials of their original; the latter supposed themselves Aborigines, but ascribed their civilization to Manga Capac and his wife. These came to them from the north-west, a direction well adapted to the scattered vessels from the eastern sea; and their improvements were not so great as to be unsuitable to the period which must have elapsed between the arrival of a legislator, from this storm, and their discovery by Europeans. The Mexicans are certainly a very numerous nation, whose customs are dispersed over a tract of land so extensive, that their origin cannot be traced to a period but little distant. It is pretty clear, that from this or a similar accident, the islands in the southern, and perhaps in the northern Pacific, were peopled; and their population is probably not of an earlier date than the shipwreck of Kublai-Kahn's fleet; but the customs of these islanders resemble those of the neighbouring continent, and not those of the Mexicans. We can readily suppose, that any intelligent person escaping from the storm would modify the customs he chose to recommend, by those of the people among whom they were introduced; so that the legislator of the Peruvians, Manga Capac, probably enforced those only best adapted to their former manners. The population of America must still continue in obscurity.

Mr. Forster's next object is the Voyages and Discoveries made in the North, by the Saxons, Franks, and Normans. These are the great discoverers in the higher regions. To them we owe the discovery of Iceland, Greenland, probably of Newfoundland, and the Labrador coast in America. Iceland, we are told, was discovered by a pirate of the name of Naddodd, in 861. There were said, at that time, to be trees on it, and, in the many accounts subsequent to that period, the country is described as fruitful and pleasant. Many of these countries were peopled by Normans, particularly the Orkneys, and the Shetland Islands; and they called the Hebrides the Southern Islands. The following remark deserves to be inserted.

'It was only by the Scotch that (on account of their western situation with respect to them) they were termed the Western Islands; but the Danes, who went to them from the north, gave them the name of Soderoe; hence originates the title of the bishop, in whose diocese these islands were, together with the Isle of Man; as he still is called, though the reason of it

be not rightly known, bishop of Sodor and Man. But it is easy to perceive that this Sodor can be no other than the Soderoe of the Danes. [Or rather the Sodoar, by contraction from the Swedish Soder South, and Oar Islands]. Note of the translator.'

In this geographical account, Alfred's translation of Orosius, a precious treasure of ancient geography, could not be omitted. In fact, so much of it as is connected with the northern parts is translated from the Anglo-Saxon, illustrated with a map, and learned explanatory notes. Orosius' description is said to have been elucidated and augmented by the accounts of Ohther and Wulfstan, two very intelligent northern travellers. In our author's notes we think many difficulties might have been elucidated, by attending to the changes which have evidently taken place in the course of the sea, on the shores of the Baltic. We shall select, as a general specimen of our author's relations, his account of the discovery of America by the northern voyagers, which they called Winland.

' The passion which the Normans had always manifested for making discoveries, still prevailed among them even in the cold regions of Iceland and Greenland. An Icelander of the name of Herjolf, was accustomed, together with his son Biorn, to make a trip every year to different countries, for the sake of trading. About the year 1001 their ships were separated by a storm. Biorn being arrived at Norway, heard that his father Herjolf, was gone to Greenland, upon this he resolved upon following his father thither; but another storm drove him a great way to the south-west of his track. In consequence of this he descried a flat country covered all over with thick woods; and just as he set out on his return, he discovered an island likewise. He made no stay at either of these places, but hastened as much as the wind would allow him to do, which had now fallen greatly, by a north-easterly course to Greenland. Here this event was no sooner known, than Leif, the son of Eric Readhead, who had an inordinate desire to acquire glory, like his father, by making discoveries and founding colonies, fitted out a vessel carrying thirty-five men, and taking Biorn with him, set out for this newly discovered country. Having set sail, the first land he saw was rocky and barren. Accordingly, he called it Helleland, or Rockland. Upon this he came to a low land, with a sandy bottom, which, however, was over-grown with wood; on which account he named it Markland, or Woodyland. Two days after this he saw land again, and an island lying before the northern coast of it. Here was a river, up which they sailed. The bushes on the banks of it bore sweet berries; the temperature of the air was mild, the soil fertile, and the river well stored with fish, and particularly with very fine salmon. At last they came to a lake, from which the river took its rise. Here they determined to

pass the winter, which they accordingly did ; and in the shortest winter day saw the sun eight hours above the horizon : this therefore supposes that the longest day (exclusive of dawn and twilight) must have been sixteen hours long. Hence again it follows, that this place being in the forty-ninth degree of north latitude, in a south-westerly direction from Old Greenland, must either be the river Gander, or the Bay of Exploits in Newfoundland, or else some place on the northern coast of the Gulf of St. Lawrence. Here they erected several huts ; and they one day found in the thickets a German of the name of Tyrker, who had been missing, making himself very happy at having found grapes, from which he told them, in his country they used to make wine. Leif having tasted them, from this circumstance, which appeared to him very remarkable, called the country Winland dat Gode ; i. e. the Good Wine-country.'

This country evidently enjoyed a milder climate than the northern parts of America do at present ; but the facts are, on the whole, well established in various authors ; and we must allow, that probably some parts of the American coast were seen by the Normans five hundred years before the reputed discovery.

The next part of our author's History contains the Travels of the Italians ; but, as these consist of the adventures of particular voyagers, we shall, at this part, finish our article, and again resume the account of Mr. Forster's careful compilation in a future Number.

Letters on Egypt. By Mr. Savary. Illustrated with Maps. In Two Volumes. 8vo. 14s. in Boards. Robinsions.

NO literary work affords so signal a proof how much description may be enlivened, and narrative rendered interesting, by the genius and abilities of the author, as that now before us. With all the ardour of enquiry, with all the discernment of a penetrating understanding, M. Savary is farther endowed with the most delicate sensibility, and that noble fire of enthusiasm, which kindles at the ruins of ancient grandeur, and charms the imagination with the prospect. Numerous are the travellers who have visited Egypt, with the view of examining its antiquities : they all seem to have been industrious in the execution of their plan ; but their merit, we must acknowlege, appears extremely diminutive when compared with that of the present author, in respect to the qualifications of a writer, as well as of a traveller. In M. Savary's descriptions we recognize the characters of a beau-

tiful and accurate delineator ; his remarks are those of a judicious observer, exercised in reflection ; and his various recitals, whether relative to the arts, the manners, the customs, or the government of Egypt, display a justness of sentiment, an extent of knowledge, and an animation of style, which must place the ingenious author in the most distinguished rank of philosophical travellers. In a word, M. Savary gives not only the most satisfactory account of the present state of Egypt, but by his unwearyed researches into the monuments of this celebrated country, illustrated by the narrative of ancient writers, he presents us with such a view, likewise, of its condition in extremely remote times, as never before was exhibited to the world. By the remaining ruins which he describes, and by the auxiliary light of historical researches, he leads the imagination into scenes which have been closed for thousands of years ; and amidst sphinxes, and pyramids, and temples, and ancient wonders, the reader is almost induced to imagine that he treads upon classic ground.

This valuable work is written in the form of Letters, the first of which contains a general Description of Egypt, and of the Changes which it has undergone from the most remote Antiquity to the present Time. In this Letter we find a distinct account of the topography of the country, and a detail of the labours of the ancient kings in confining the channel of the Nile, with the original formation of the Delta, and its gradual enlargement. We find, that in the time of Moeris, who lived five hundred years before the Trojan war, the Delta appeared in its infancy. An inundation of the Nile, eight cubits in height, was then sufficient to overflow this district from one extremity to the other. At present, eighteen cubits is reputed the measure of abundance ; but the Nile sometimes rises to two-and-twenty cubits. During our author's stay in Egypt, he twice made the tour of the Delta, in the time of the inundation ; but the river did not overflow the lands, except in the lower parts, where the dykes were pierced, for the purpose of watering the plantations of rice. It would therefore seem, that in the space of three thousand two hundred and eighty-four years, the Deka has been elevated fourteen cubits. This phenomenon is owing chiefly to the mud accumulated by the annual inundation, in the course of so many years.

Letter II. presents us with a Description of Alexandria, ancient and modern, and of its Antiquities, and three Ports ; with an Account of the various Revolutions it has experienced in falling successively under the Dominion of the Ptolemies, the Romans, the Greeks, the Arabs, and the Ottomans. This de-

description is accompanied with a topographical chart of the city and its environs, delineating both its former and present state.

Our author observes, that Homer represents the Isle of Pharos as at the distance of a day's navigation from the coast of Egypt, because Lake Mareotis then joined the sea, and formed a gulf there. In the space of five hundred years from the time of the poet to the foundation of Alexandria, canals were cut in Lower Egypt; Lake Mareotis, which was the receptacle of the waters of Thebais, retreated a little, and the tongue of land, on which Alexander built this city, appeared. When Cæsar, Strabo, and Diodorus Siculus wrote, it washed the walls. In the time of the Arabs, it was already half a league from it. Under the destructive empire of the Ottomans, it has totally disappeared. From these circumstances M. Savary justly remarks, that a traveller who should see this part of Egypt in our days, and had only read Homer, would be apt to say with madame Dacier, Pope, and other learned persons, that his description of Pharos is a mere sport of the imagination. Such are the changes which happen on the surface of the globe, especially in maritime parts, during a long revolution of ages!

Dr. Pococke is of opinion, that the two obelisks, vulgarly called Cleopatra's Needles, were placed before the Temple of Neptune. But M. Savary thinks this conjecture improbable; for the Temple was near Port Eunostus, from which these obelisks are distant half a league, near the promontory of Lochias, the spot assigned by Strabo for the palace.

A pillar of red granite, situated at a quarter of a league from the southern gate of Alexandria, has much engaged the attention of travellers. The capital is Corinthian, with palm leaves, and not indented. It is nine feet high. The shaft and the upper member of the base are of one piece, of ninety feet long, and nine in diameter. The base is a square of about fifteen feet on each side. This block of marble, sixty feet in circumference, rests on two layers of stone bound together with lead, which, however, has not prevented the Arabs from forcing out several of them to search for an imaginary treasure. The whole column is one hundred and fourteen feet high. It is perfectly well polished, and only a little shivered on the eastern side. Whilst learned men and travellers have made many fruitless attempts to discover in honour of what prince it was erected, the best informed, as our author observes, have concluded that it could not be in honour of Pompey, since neither Strabo nor Diodorus has mentioned it. They have, therefore, remained in doubt; but M. Savary thinks that

Abulfeda could have extricated them from it. That writer calls it *the pillar of Severus*; and his authority appears to be well founded; for this emperor, it is known, visited Egypt, gave a senate to Alexandria, and deserved well of its inhabitants. The lovers of antiquarian knowledge cannot but consider themselves as under obligations to M. Savary, for elucidating this dubious point by the authority of an Arabian writer, with whom very few are acquainted. Concerning so majestic a monument, perhaps traditional accounts may have transmitted this information to the times of Abulfeda; or we may suppose, what is not improbable, that this circumstance was mentioned by some more ancient writer, from whom it has been copied by the Arabian.

Letter III. describes the Route from Alexandria to Rosetta, across the Desart. The author presents us with a description of *Aboukir*, anciently *Canopus*, a town which derives its name from the pilot of Menelaus, who died there. This place was famous for the temple of Serapis, to which people resorted from all quarters, for pleasure more than for religion. On perusing the account of the desart, as described by M. Savary, we cannot but acknowledge, that no small praise is due to the traveller who has the resolution to cross that inhospitable region in the pursuits of literature, and for the gratification of curiosity.

' After passing the ferry of *Madié*, says he, the traveller finds a caravansary, the only asylum against the extreme heats of a burning sky, in a journey of fourteen leagues. Beyond that is a barren plain, where the eye perceives neither tree, nor shrub, nor verdure. The sight is fatigued by a torrent of light; the skin is burnt by the ardour of the sun. Eleven columns, placed at different distances, serve as a direction for the traveller across the desart, wherein the wind drives before it the hillocks of sand, like the waves of the ocean. Unfortunate he who is surprised by a whirlwind at noon, in the middle of that solitude! If he has not a tent in which he can take shelter, he is attacked by torrents of burning dust, which, filling his eyes and his mouth, deprive him of respiration and of life. The most prudent method is, to make this journey by night; at break of day the traveller discovers the palm-trees and the sycomores, which crown the banks of the Nile, and he arrives at Rosetta, bathed in sweat and dew.'

If any thing can compensate the dreariness of this journey, it is the beautiful environs of Rosetta, which are next elegantly described by our author.

Letter IV. contains an Account of Rosetta, its Origin, Commerce, Inhabitants, and Gardens; and of the Procession of the Psylli, or the Eaters of Serpents. For the gratification of

of our readers we shall present them with an account of this spectacle.

‘ Last week was celebrated the feast of Sidi Ibrahim, which drew a vast concourse of people to Rosetta. A Turk permitted me to come to his house to see the procession. Seated at the window, I observed attentively this new spectacle. The different bodies of artizans gravely marched along under their respective banners. The standard of Mahomet, which was carried in triumph, attracted a vast crowd. Every body was desirous of touching, of kissing it, of putting it to his eyes. Such as were fortunate enough to partake of that favour, returned contented. The tumult was incessantly renewed. At length came the cheiks (the priests of the country), wearing long caps of leather, in the form of a mitre. They marched with solemn steps, chaunting the Coran. A few paces behind them, I perceived a band of madmen, with their arms bare, and a wild look, holding in their hands enormous serpents, which were twisted round their bodies, and were endeavouring to make their escape. These psylli, griping them forcibly by the neck, avoided their bite, and notwithstanding their hissing, tore them with their teeth, and ate them up alive, the blood streaming down from their polluted mouths. Others of the psylli were striving to tear from them their prey; it was a struggle who should devour a serpent.’

‘ The populace followed them with amazement, and believed it to be a miracle. They pass for persons inspired, and possessed by a spirit who destroys the effect of the bite of the serpent. This description, which I give you after nature, at first frightened me, and then made me reflect on man, that strange being, for whom poison becomes food; that credulous being, whose eyes are not opened by the spectacle renewed every year; and who in the blindness of his ignorance, is ready to worship as a God, his fellow-creature who has the art to impose on his understanding. You see, sir, those ancient usages are not lost in a country where custom, that imperious tyrant of the world, has peculiarly established her throne, and her altars.’

Letter V. describes the Journey from Rosetta to Boulac. This narrative is accompanied with Observations on the Manner of navigating the Nile; the Canals which are detached from it; the Towns, Villages, and Hamlets on their Banks; the Cultivation of the Lands, their Productions, and the Customs of the Inhabitants. On account of the picturesque scenes described in this Letter, in the usual lively manner of M. Savary, we shall lay before our readers an extract from his agreeable voyage on the Nile.

‘ The northerly wind, always favourable to our wishes, has hastened the dawn; the sailors have spread the sail. We overcome with ease the rapidity of the current. We have passed

several low islands almost under water, and some hamlets, that we perceive through clumps of verdure. We are five miles from Faoüé, opposite the mouth of the canal formed by Alexander, and which the negligence of the Turks has suffered to be partly choked up. Following its course, at four leagues within the country is the small town of Damanhour, inhabited by Copti and Mahometans. It is the Hermopolis parva of Ptolemy. Strabo places it on the river, but by that must be understood the canal of Alexandria. Abulfeda has marked its situation well. The neighbouring country produces a great deal of flax, corn, barley, and cotton, which is an annual plant.

As we advance, we perceive a multitude of boats going up the river under sail; others that go down, and drive with the stream. The mariners amuse themselves with their rough and noisy music. They mix their hoarse voices with the sound of the tambour de basque, and of the wild flute made of reeds. These concerts do not charm the ear; but the joy they inspire reaches the soul of those who hear them. Doves of oxen low in the meadows. The peasants, dispersed over the plain, are watering their crops. The girls descend from their villages to wash their linen, and draw water. They are all at their toilet. Their pitchers and their clothes are on the bank. They rub their bodies with the mud of the Nile, plunge into the river, and sport amongst the waves. Several of them are now swimming around our boat, crying out *ia sidi at mäidi*, seignior, give us a medin. They swim with a great deal of grace. Their hair flows in tresses on their shoulders. Their skin is very brown and swarthy, but they are in general well made. The facility with which they bear up against the rapidity of the current, proves what strength and suppleness the most delicate persons may acquire by exercise. So after washing her garments, was the beautiful Nauficæa, bathing herself with her companions, when Ulysses appeared quite naked before them. The wind freshens; our bark cuts the water with rapidity. The course of the Nile is very crooked, and every elbow presents us a fresh landscape. Here appears a village which loses itself in the horizon; there stands a large burgh with its mosque, near to a wood of orange-trees. On every side we discover pigeon-houses of a pyramidal form, where innumerable flights of pigeons are collected. Fed in these fertile plains, their flesh is fat and of a delicious flavour; they only cost three medins (or two-pence farthing English) the couple. The Egyptians manure with their dung the ground wherein they plant their water-melons. Night approaches. The Nile is filled with pirates, who attack the boats under cover of the darkness, cut off the heads of the passengers who are off their guard, and rob them of their effects. We have cast anchor near a little hamlet. The captain has collected his crew, and is very gravely recounting to them many wonderful tales. His audience sitting round, is listening to him with the greatest attention.

From on board, the 4th October.

We have passed the night between a little island and the mouth of the canal of Menouf. This canal comes out of the branch of Damietta, and runs into that of Rosetta, intersecting the Delta in an oblique direction. It is fifteen leagues long, very wide, and is navigable for boats three months of the year. At four leagues from its mouth is the pleasant town of Menouf, the capital of the province of that name, and the residence of a bey. It is situated in the midst of rich fields sown with corn, beans, bamier, and dourra, and shaded by groves of tamarind and date-trees, inhabited by vast numbers of turtle-doves, which, never hearing the terrifying noise of powder, are as tame as domestic pigeons.

From sun-rise the north wind had filled our sails. We pass between islands on which the grass is very high, and where they are driving the buffaloes to pasture. A shepherd seated on the neck of the foremost of the drove, descends into the river, smacks his whip, and leads the way. The whole drove follow in a row, lowing as they swim along to their pasture, and discharging out the water from their wide nostrils. These animals live in the Nile during the heats; they plunge up to the shoulders, and feed on tender grass that grows along the banks.

Behind a wood of date-trees and sycamores, which terminates our prospect to the southward, arise the lofty minarets of Terrané. This small town, situated on the western bank of the Nile, is only eight leagues from the monastery of St. Macaire. The natroun, which the Egyptians make great use of, is brought thither from two lakes. A few miles higher, is the little harbour of Ouardan, under the shade of the palm-trees, where father Sicard burnt heaps of ancient manuscripts which were shut up in a pigeon-house, under pretence that they were books of magic. Thus does blind fanaticism destroy, in a moment, the treasures of whole ages! The sun has run half his course; we have left Ouardan on our right; if the wind holds we shall be this evening at Boulac.

Before all the villages we pass, the children of both sexes are exercising themselves in swimming. They cover their bodies with mud, plunge into the water, return to the bank, and again throw themselves into it. Swimming is a pleasure which necessity has made a law for them. All Egypt in fact is intersected by wide and deep canals, which are full of water in the time of the inundation. It is often necessary to cross several of these, to go from one village to another. On these occasions men and women throw off their shirts and drawers, and, making a diadem of them round their heads, swim over the river. But what would surprise an European, is to see the Egyptian women, who, under these circumstances, preserve only a small piece of linen to cover themselves, put it on their faces. A Turk would find no difficulty in explaining this phenomenon.

Letter VI. contains a Description of Grand Cairo, the capital of Egypt; with Researches concerning its Origin, according to the Authority of the most eminent Arabian Writers. This city, until the fifteenth century, was one of the richest and most flourishing capitals in the world. It was the emporium of Europe and of Asia. But the discovery of the Cape of Good Hope, and the conquest of the Ottomans, have greatly diminished its importance.

Letter VII. recites the Foundation of Fostat by Amrou Ebn Elaas. This town is commonly called Old Cairo, and has been the subject of much enquiry amongst the learned. This Letter contains likewise a Description of the Town, its Inhabitants, Antiquities, and the ancient Canal which extended to the Red-Sea; with a Refutation of the Authors who suppose this Place to be the ancient Babylon, founded by Semiramis.

It may appear surprising, that such a mechanical expedient as the following should be practised by the Arabs.

'At the entrance of Old Cairo is an hexagonal building, each side of which is eighty feet, and one hundred high. A range of steps, very easy of ascent, permits the oxen to mount it, where they turn a wheel which raises the water to the top. Five basons receive, and pour it into an aqueduct, supported by three hundred arches, which conveys it into a reservoir. From thence other oxen raise it by the means of fresh wheels, up to the palace of the pacha. This building is the work of the Arabs. They have formed it on the plan of that described by Strabo, the ruins of which are between the citadel of Babylon and the Nile. All the difference is, that the Mahometans make use of oxen instead of men.'

Letter VIII. gives an Account of the Extent of Grand Cairo; a Description of the Streets, Squares, and Mosques, and of the Palace of Salah Eddin, built upon an Eminence which commands the Town. One of the most curious monuments in the castle, is the celebrated well of Joseph, hewn out of the rock. It is two hundred and eighty feet deep, by forty-two in circumference.

Letter IX. affords a Description of Boulac, the Port of Grand Cairo, its Magazines, Environs, and the Gardens of Hellé; with a curious Account of the Mekias, otherwise named the Nilometer, placed at the Point of the beautiful Isle of Raouda, which is covered with delightful Groves. The old castle of Hellé is the residence of the pacha, the grand seignior's viceroy, who, though received at this place by the beys with all the exterior marks of respect, remains ever after the prisoner and slave of that despotic aristocracy. The enclosures round

round Hellé are described by our author as extremely beautiful.

"In the environs of Hellé are spacious enclosures, where orange, lemon, and pomegranate-trees, grow very high and very bushy. Their interwoven branches form delightful bowers, over which the sycamores and palms elevate their foliage of a deeper green, whilst rivulets purr through tufts of sweet basil and of roses. I cannot express to you how grateful it is, when the sky is inflamed with the burning heat of the dog-days, to breathe the fresh air under these enchanted shades. It is a voluptuousness more easily felt than described. The fragrance of the orange-flower, mixed with the delicious emanations from balsamic plants, sweetly awaken the senses, benumbed with the heat, and circulate through the soul the most agreeable sensations. It is often dangerous for an European to walk in these groves, which are peopled by courtezans; and the jealous Turks would never pardon them a false step. One may with propriety apply to these barbarians this verse of Virgil :

" Ignoscenda quidem, scirent si ignoscere manes."

Letter X. contains a Description of Heliopolis, the ancient City of the Sun; of the State in which it was in the Time of Strabo; the Obelisk of Granite, which still remains; the Balm of Mecca, transplanted thither by a Pacha; the fresh Water Fountain named Matar Aïn, held in great Veneration by the Coptis, who believe that the Holy Virgin and her Child visited this place. Heliopolis had a temple to the sun, where a particular place was set apart for the feeding of the sacred ox, which was there adored under the name of Mhevis, as he was at Memphis, under that of Apis. But this was not the only temple admired at Heliopolis. There was another remarkable one in the ancient Egyptian taste, with avenues of sphinxes and superb obelisks before the principal entry. One of the obelisks built by Sochis is still standing on its pedestal. It is composed of a block of Thebaic stone, perfectly well polished, and is sixty-eight feet high, without reckoning its base, and about six feet and a half wide on each aspect, which are covered with hieroglyphics. This obelisk is in good preservation, except on the south-west side, where the granite is scaled off to a certain elevation. This beautiful monument, and a sphinx of a yellowish marble, overset in the mud, are the only remains of Heliopolis.

It was chiefly at Heliopolis that Herodotus became acquainted with the sciences, and the Egyptian mysteries. As the truth of this historian's narrative has in many parts been questioned, we embrace with pleasure this opportunity of mentioning an acknowledgment made by our author, that, with respect to Egypt, he has found in that country the very manners

manners and customs which Herodotus has described, with only a few slight modifications, introduced by the changes of government and religion. In regard to the monuments of which that celebrated ancient has given a description, M. Savary informs us, what still remains of them sufficiently proves that he has not exaggerated, and demonstrates the possibility of what no longer exists.

Letter XI. presents us with a Description of the warm Baths, universally used in Egypt; the Manner of bathing; the Benefits experienced from this Practice; the Custom of the Women, of bathing once or twice in the Week; and a Comparison of these Baths with those of the ancient Greeks.

'The women, says our author, are passionately fond of these baths. They frequent them at least once a week, and take with them slaves properly qualified for the purpose. More sensual than the men, after undergoing the usual preparations, they wash their bodies, and above all, their heads, with rose-water. It is there that female head-dressers form their long black hair into tresses, which they mix with precious essences, instead of powder and pomatum. It is there that they blacken the edge of their eyelids, and lengthen their eyebrows with cohel. It is there they stain the finger and toe nails with henné, which gives them a golden colour. The linen and clothing they make use of are passed through the sweet steam of the wood of aloes. When the work of the toilet is at an end, they remain in the outer apartment, and pass the day in entertainments. Females entertain them with voluptuous songs and dances, or tell them love tales.'

'The days of using the bath are festivals for the Egyptian women. They deck themselves out magnificently, and under the long veil and cloak that conceal them from the public eye, they wear the richest stuffs. As they undress before each other, their coquetry extends even to their drawers. In summer they are made of embroidered muslin; in winter of stuffs, of silk, and gold brocade. They are not acquainted with the use of ruffles and laces, but their shifts, made of silk and cotton, are as light and transparent as gauze. Their flowing robes are bound with rich girdles of the wool of cachemire. Two crescents of fine pearls sparkle on the black hair that covers their temples. The Indian handkerchiefs with which they crown their heads, are decorated with diamonds. Such are the Georgian and Circassian women, whom the Turks purchase to make wives of them. Nothing can equal their cleanliness, and, as they walk, they are surrounded by a cloud of odours. If their luxury be not publicly displayed, it greatly surpasses that of the European women, in the interior of their houses.'

Letter XII. gratifies us with a particular Account of the Egyptian Manner of living; the Food, Occupations, and Amuse-

Amusements of the People; their Taste and Morals; and the Manner in which they receive Visitors. According to our author's account, the manner in which the Egyptians receive their guests, resembles very much that of Achilles towards the Grecian deputies, as described by Homer.

Letter XIII. contains an Account of the paternal Authority still subsisting in Egypt, similar to that of the ancient Patriarchs; the Manner in which a Father governs his Children; and the great Respect which the Egyptians pay to old Age. Our author's account of this subject farther confirms the testimony of Herodotus, who has particularly mentioned the respect paid to old age by the ancient Egyptians.

Letter XIV. affords an Account of the Alm , otherwise the Egyptian Improvisatrices; their Education, Dances, Music; and the extreme Desire which prevails through the Country, of procuring this Kind of Performers. Our limits will not permit us to mention particulars relative to this class of females; but the reader's curiosity will be sufficiently gratified by our author. We shall only observe, that the alm  perform pantomime ballads, in which they represent the usual occurrences of life. The suppleness of their bodies is inconceivable, and the indecency of their attitudes is often carried to excess.

Letter XV. presents us with an Account of the private Life of the Egyptian Women; their Taste, Manners, Employment, Diversions; their Method of bringing up their Children; with the Custom of lamenting at the Tombs of their Parents, after covering them with Flowers, and the Branches of odoriferous Plants.

Letter XVI. contains the Account of an Intrigue which happened at Rosetta, between a European and a young Girl, a Native of Georgia.

Letter XVII. describes the Journey from Grand Cairo to Giz , where the French Merchants have a Country House; the Route from Giz  to the Pyramids, with an exact Account of their Height, as described both by ancient and modern Travellers. It is shewn that the great pyramid is at present six hundred feet high; but that in the time of Herodotus, when the sand was not accumulated round its base, it measured almost eight hundred feet perpendicular.

Letter XVIII. contains Remarks on the interior Structure of the great Pyramid, its Apartments, the Means employed by the Architects to shut it, and render it inaccessible; with the Method now used of procuring Admittance. To this Letter is subjoined a chart, with Notes, and Reflections, which

which render this the most complete and satisfactory account of the Egyptian pyramids hitherto delivered.

Letter XIX. gives a Description of the other Pyramids; the adjacent Country; the Grotto of Santo; the great Sphinx, with an Account of its Mythology, and the Return to Giza.

Letter XX. presents us with a Description of Giza, the ancient Suburb of Fostat; a charming View of the Nile, the Island of Raouda, Old Cairo, and the Boats which are constantly passing along the River; with an Account of the Manufacture of Sal Ammoniac. M. Savary refutes, in a satisfactory manner, the authors who suppose Giza to be the same with Memphis.

Letter XXI. is occupied with an Inquiry into the true Situation of ancient Memphis, confirmed by the Testimony of Herodotus, Strabo, Pliny, and the Arabian Writers. A Description of the City as it was in the Time of Herodotus, and Diodorus Siculus; its Temples, Palaces, and Lakes. The Ruins which are now to be seen in the Neighbourhood of the Village of Menph, the small Remains of the ancient Memphis.

[*To be continued.*]

*A Fragment on Shakspeare, extracted from Advice to a young Poet.
By the Rev. Martin Sherlock. Translated from the French.
1810. 15. Robins.*

OUR readers are already acquainted with Mr. Sherlock, who publishes in French at Paris, in Italian at Rome, and in English at London; who, with a happy fluency, often expresses, in striking language, the brilliant effusions of a cultivated mind; who can rise to the top of the scale, at the moment when he is going to sink in trifling remarks, sounding nothings, or ineffectual humour. Such is Mr. Sherlock, always unequal, frequently in error; but brilliant, lively, entertaining, and instructive. This fragment is the shadow of a shade: it is translated from the French, which was taken from the Italian work, entitled *Consiglio ad un Giovane Poeta*, Advice to a young Poet. Mr. Sherlock has, however, found a congenial soul in his translator's. His spirit is not evaporated: this little Fragment is as much his own, as if he had this moment transcribed it with his own pen, from the recollection of those ideas which dictated the Advice.

Mr. Sherlock is an idolater of Shakspeare, and with reason; for he feels, with the acutest sensibility, his beauties, and expresses his feelings with ardour. The tinsel of the critic shows

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the solid ore of the poet to advantage? in other words, Shakspeare's great forte is expressive strength; Mr. Sherlock's, flowery brilliancy. Could an idolater wish for a happier foil to decorate his divinity?

The French translator intended to have dressed the whole of the Italian pamphlet in his own garb, but he found copious extracts had been made from it by the author, in his successive volumes of Letters. Perhaps the English editor, for the same reasons, confined his version to what had been selected by the French translator. The Fragment on Shakspeare is accompanied by some miscellaneous remarks on dramatic writers, and critics from the same work, which are not found in any other; but the latter are inserted in the preface. The two passages of Shakspeare which engage Mr. Sherlock's attention, are the speech of Anthony over the body of Cæsar, and Coriolanus's reply to the insult of Tullus after his return to Antium. The beauties of each are pointed out at sufficient length. Mr. Sherlock, however, is a little inconsistent. In one passage of the preface he denies that Shakspeare had taste: in the fragment he allows him taste; but supposes that, with a view to his emolument, he neglected its employment in correcting and polishing, since his audience were incapable of perceiving the beauties of more finished compositions. In fact, the dispute is a trifling one: taste is an artificial refinement, introduced after a language has been in some degree polished; but in Shakspeare's time, our language and our manners had only the robust graces of youth, rising to a more finished state. As a specimen, we shall leave Shakspeare, and select Mr. Sherlock's remarks on Longinus. They are equally animated and just: as usual also, they are greatly exaggerated; but Mr. Sherlock is apt to make his favourites giddy by elevating them too high.

' This matchless writer at once gives the precept and example. He read with enthusiasm, he wrote with enthusiasm, and he conveys enthusiasm into the soul of his reader. Other critics will make you see the beauties of a poet; he makes you feel them: he does not demonstrate, he does not persuade, he entrances, he elevates, and, like the sublime which he paints, he subdues the soul, and transports it whither he pleases. Woe to the reader, who, while he reads Longinus, can stop to judge him! But afterwards, when in cool blood he analyses his ideas, he there discovers the refined and exquisite touch of Horace, the sure and solid judgment of Boileau, the vigour and sensibility of the citizen of Geneva. Such are his leading features. Some one has well entitled his, *The Book of Gold*. It is the most valuable of all the treatises that are in being. It has only one fault, that of being too short. Learn him, therefore, by heart, all ye Mæcenases and poets.—*Hic murus abeneus esto!* Learn him also, ye who endeavour to read with sentiment and feeling,

feeling, and, if I may so say, with judgment. Ye admirers of Dante and Ariosto, read him not. Longinus, the Homer of critics, is all good sense; he will break your idols. A lover of truth, and of bold but judicious sallies, he suffers not the starts of a disordered imagination. But this great man, who would have condemned to the flames that

"Monstrum horrendum, informe, ingens," the Divina Comedia, would have read some of its verses with transport. On perusing the canto of count Ugolino, the sentimental soul of Longinus would have exclaimed, 'Homer has nothing so sublime;' and his infallible judgment would afterwards have confirmed the decree. When I styled Longinus a great man, it was with reason. To superior talents he added an elevated heart. He was a man of learning, and at once possessed (what are very seldom united) genius and taste. As a statesman, he maintained with a noble spirit the glory of his queen. To the enlightened understanding of a philosopher he added the constancy of a hero; and, if he had not composed his divine treatise, his death alone would have immortalized him; a death as glorious to him as it was infamous to Zenobia and Aurelian!

*The Theological Repository, consisting of Original Essays, Hints, Queries, &c. calculated to promote Religious Knowledge. Vol. IV. * 8vo. 6s. 6d. in Boards. Johnson.*

'IT is, says Dr. Priestley (the editor), in the Introduction to this Volume, with peculiar satisfaction that I resume the publication of this Theological Repository, as it was with much reluctance that, for want of sufficient encouragement, I submitted to the discontinuation of it, in the year 1771. While it was open, it was certainly of great use for the purpose of the free discussion of several questions of great importance in theology, and was the means of bringing before the public many valuable illustrations of scripture, which would otherwise never have seen the light. I hope that the work will be no less useful, or less acceptable to the friends of free enquiry, now that it is revived. There are many new topics of great importance still before us, and the spirit of free enquiry is likewise much increased since the time of the former publication; so that there is every reason to hope that it will be resumed with better auspices than those under which it was first taken up. A trial, however, will be made; and if only another volume be added to the former three, the friends of truth will have some reason to be thankful.'

After taking notice of the perfect freedom and impartiality with which, he doubts not, the public have given him the credit of conducting this work, he says: ‘Lest any persons should imagine that this work is now revived by way of opposition to the society for promoting the knowledge of the scriptures, who publish a work in occasional numbers, entitled, Commentaries, and Essays, &c. I will inform them, that I am one of that society, and a sincere well-wisher to its success; and had it been thought adviseable to enlarge the plan of that work, so as to admit papers, the object of which might be not merely the illustration of scripture, but the promoting of religious knowledge in general, and especially such as might lead to controversy, this work would not have been resumed. But it was thought that both the publications might have their separate uses, and go on with advantage together; *that* being confined to the illustration of the scriptures, in the analytic method explained in their introduction, and *this* admitting papers in defence of particular opinions, and likewise such as shall have for their object the clearing up of difficulties in ecclesiastical history, the evidences of revelation, or any other subject that comes within the general character of religious knowledge, without any particular view to the illustration of the scriptures.’

The articles contained in this volume are as follow: I. Observations on Inspiration.—II. Observations relating to the Inspiration of Moses.—III. Of the Island on which the Apostle Paul was shipwrecked.—IV. Observations on the Mission of John the Baptist, in five articles.—V. Remarks on Dr. Taylor’s Key to the Apostolic Writings.—VI. A Query relating to the Rise of the Arian Doctrine.—VII. A conjectural Emendation of Exodus, xxiii. 23.—VIII. A Query relating to the Doctrine of Plato, concerning the Divine Essence.—IX. Of the Doctrine of Plato concerning God, and the general System of Nature.—X. Observations on the Prophets of the Old Testament.—XI. Remarks on some of the preceding Articles.—XII. Thoughts on the Demonical Possessions of the New Testament—XIII. An Illustration of Hebrews, ix. 16, 17.—XIV. A Defence of the Arian Hypothesis.—XV. Animadversions on the Preface to the new Edition of Ben Mordecai’s Letters.—XVI. A Proposal for correcting the English Translation of the Scriptures.—XVII. Observations on the Inspiration of the Apostles.—XVIII. Corrections in the Translation of Rom. i.—XIX. A Postscript in Reply to Neplodiascalos.—XX. An Explanation of some Passages in Mark’s Gospel.—XXI. Illustrations of certain Passages of Scrip-

Scripture.—XXII. Observations on the miraculous Conception.—XXIII. The History of the Arian Controversy.—XXIV. An Attempt to shew that the Arians are not Unitarians.—XXV. An Illustration of John vi. 26, 27. and John viii. 58.—XXVI. A Query concerning the future State.

—XXVII. An Illustration of the Promise made to Abraham.

—XXVIII. An Argument against the Reasoning found in the Scriptures being inspired.—XXIX. Socinians not the only Unitarians.—XXX. Of the Use of the Greek Article.—

XXXI. A View of the Principles of the later Platonists.—

XXXII. Of the Platonism of Philo.—XXXIII. Observations on the Apostolical or Jerusalem Decree.—XXXIV. Observations on the Inspiration of Christ.—XXXV. Observations on the Prophecy concerning Shiloh.—XXXVI. Of the Pre-existence of the Messiah.—XXXVII. Observations on the Introduction to Matthew's Gospel.

With regard to the second of the above articles, on the Inspiration of Moses, we would ask, if all the falsities and absurdities supposed to exist in his Cosmogony be admitted, how will the author of this paper reconcile to God's wisdom and truth, the idea of chusing to inspire such a person as Moses, and of suffering him to mingle inspiration with fables?

This query, not to mention several arguments against this essay at p. 123, 4, 5, should be answered before the objections to the Cosmogony of Moses can be allowed.

We observe on the third article, relative to the Islands on which St. Paul was shipwrecked, that Bochart's arguments for its being Malta, in opposition to those of Constantine Porphyrogeneta, defended by Mr. Bryant, appear sufficiently well supported to deserve the re-consideration of those who think the island was Melite, in the Adriatic gulf, near the coast of Illyricum.

The Observations on the Mission of John the Baptist, which occupy a considerable share of this volume, are learned and ingenious; and less cannot be said for several other articles, which we have not room to particularise.

We hope the unbounded freedom of *public* discussion which takes place on many subjects of great importance in this work, under such respectable encouragement as that of several persons who take part in it, will be construed with no greater degree of latitude than they may candidly be supposed to have intended with respect to the most important interests of mankind.

Philosophical Transactions of the Royal Society of London. Vol. LXXVI. For the Year 1786. Part I. (Concluded from p. 248.)

Article VI. Observations on the Affinities of Substances in Spirit of Wine. By John Elliot, M. D.—Dr. Elliot's object is to show, that certain decompositions will take place in spirit of wine, which will not in water, or in the dry way. In water, alkalis will not separate lime from expressed oils; but in spirit of wine, an alkaline soap will be formed, and the calcareous earth will become mild. Sea-salt, added to diachylum, produced, in spirits of wine, an alkaline soap, and a muriated lead. The author adds, very properly, that this is a philosophical experiment, and probably cannot be made useful, on many accounts: at the same time he suggests, that, since in tables of elective attractions there is a division, either as the decompositions are effected in the dry or in the moist way, so the latter should be subdivided, as they occur in water and in spirit. This, however, is an innovation which may become inconvenient; for they may be as well divided into as many portions as there are compound liquids in which experiments can be made, or as there are compositions which can influence them.

Art. VII. An Account of some minute British Shells, either not duly observed, or totally unnoticed by Authors. By the Rev. John Lightfoot, M. A. F. R. S.—The first of these is a 'nautilus,' styled, from its place of abode, 'lacustris.' Mr. Walker, in his account of minute shells, noticed in our Fifty-eighth Volume, called it 'helix lineata'; but he had not described its chambered structure, on which the generic distinction depends. The second is without compartments, and is styled 'helix fontana.' The third, from the sharp-edged rings, which surround the wreaths, and which are elongated on the back of each wreath into a spur of compressed and very tender spines, is called 'helix spinosula.' The next is the 'turbo helicinus,' denominated from its resemblance to a helix. The fifth and last is of the genus patella, the 'P. oblonga.' Mr. Lightfoot concludes with remarking, that what are called gold shells by the collectors, which are brought from the West Indies, are really coverings or cells of an insect in its pupa state, most probably of a species of coccus, or cochineal, not hitherto described. The coverings are not calcareous, but of a resinous kind.

Art. X. An Account of the Subsidence of the Ground near Folkestone, on the Coast of Kent. By the Rev. John Lyon, M. A.—There was formerly published a very extraordinary account of the motion of the ground near Folkestone, which has been often attributed to the efforts of a lively ima-

gination, founded on misrepresentation. In September of last year, however, one hundred and thirty feet of the cliff sunk forty feet from the level of the adjoining cliff, and, by its pressure, is said to have raised some little islands near the shore. The gentleman engaged in the description has not explained the subject very fully, nor can it be easily understood without a plate. The foundation of the hills is said to be marble, which has been washed away by subterraneous water; yet it will be obvious, that the ground below the marble bears no more weight than before, so that a gradual subsidence only cannot be supposed to raise the little islands in the neighbourhood. If the fact is so, the ground must have been formerly supported on an arch of considerable extent, and the injury must have been done to the abutments of that arch.

This sinking, from the same cause, is not uncommon; several instances of it are mentioned in the Memoirs of the Royal Academy of Sciences for 1769; and a very strong one, in the last Supplement to Buffon's Natural History. Most of the calcareous hills rest on a clayey base; and we strongly suspect that, in the article before us, the marble should be styled clay: these are generally moistened by rills trickling through the mountain, and require only to be exposed to the air, to produce greater devastations than we have yet perceived of this kind.

Art. XI. Particulars relative to the Nature and Customs of the Indians of North America. By Richard M'Causland.—This is one of the less important articles. The first circumstance relates to the beards of the North American Indians. We already knew that they did not differ, in this respect, from Europeans; but that the appearance depended on their diligently plucking out the hair by the roots, or by shaving very closely. It was also well known, that there was more than one sachem in each tribe, that the office was hereditary in the female line, and that a sachem of abilities might rise in consequence above the others. The office of chief warriour, and the importance of women in their consultations, were explained very exactly, if we mistake not, by captain Carver. We do not recollect that the following customs have been mentioned so particularly as by this author.

Friendships seem to have been instituted with a view towards strengthening the union between the several nations of the confederacy; and hence friends are called the sinews of the Six Nations. An Indian has, therefore, generally one or more friends in each nation. Besides the attachment which subsists during the life-time of the two friends, whenever one of them happens to be killed, it is incumbent on the survivor to replace him,

him, by presenting to his family either a scalp, a prisoner, or a belt consisting of some thousands of wampum; and this ceremony is performed by every friend of the deceased.

' The purpose and foundation of war-parties, therefore, is in general, to procure a prisoner or scalp to replace the friend or relation of the Indian who is the head of the party. An Indian who wishes to replace a friend or relation presents a belt to his acquaintance, and as many as chuse to follow him accept this belt, and become his party. After this, it is of no consequence whether he goes on the expedition or remains at home (as it often happens that he is a child), he is still considered as the head of the party. The belt he presented to his party is returned fixed to the scalp or prisoner, and passes along with them to the friends of the person he replaces. Hence it happens, that a war-party, returning with more scalps or prisoners than the original intention of the party required, will often give one of these supernumerary scalps or prisoners to another war-party whom they meet going out; upon which this party, having fulfilled the purpose of their expedition, will sometimes return without going to war.'

Art. XII. Abstract of a Register of the Barometer, Thermometer, and Rain, at Lyndon in Rutland, 1785. By Thomas Barker, Esq. Also of the Rain at South Lambeth, in Surrey; and at Selbourn and Fyfield, Hampshire. By Thomas White, Esq. F. R. S.—This article affords nothing very remarkable except the quantity of rain that fell at Selbourn, in Hampshire, during the last year: it amounted to more than thirty-one inches. From a comparison of many different years, Mr. Barker thinks that for four successive periods of ten years, the quantity of rain has been increasing each time.'

Art. XIII. An Account of Experiments made by Mr. John M'Nab, at Henley-House, Hudson's Bay, relating to freezing Mixtures. By Henry Cavendish, Esq. F. R. S.—These Experiments are, in many respects, curious and important, but we suspect that they are imperfect; at least they are surprising, and sometimes inexplicable. Mr. Cavendish explained, in a former paper, his opinion of the cause of cold, produced by mixing snow with different liquors. We gave some account of that paper in our Fifty-eighth Volume, p. 336. In consequence of his opinion, that a greater degree of cold might be produced than had been hitherto done, some additional experiments were made by Mr. M'Nab, at Henly-House, about one hundred and thirty miles to the west of Albany.

In the production of cold, by adding spirit of nitre to snow, Mr. Cavendish suspected that the cold was owing to the melting of the snow, and thought that there was a certain degree of cold in which spirit of nitre would yield up its water, and

suffer it to freeze, without producing any additional cold. In fact, however, either the acid parts are entangled in the spiculae of ice, or the acid is actually congealed; for the parts unfrozen are only a little stronger than the former acid, and by no means contain, exclusively, the salt. It is remarkable that the acid contracts in freezing; its ice sinks to the bottom of the vessel; that it bears a very great degree of cold, far below its freezing point, before it congeals, but, in congelation, the heat increases as in water, and in escaping, brings it back to the usual standard. This evidently proceeds from the strong attraction it has for specific heat; and we find the influence of a little agitation in bringing on congelation, more strikingly than in the experiments with water. The frozen acid is gritty: the ice is generally white, from the air contained between the spiculae; when more firmly concreted, it is transparent.

Another suggestion of Mr. Cavendish was, that the strong spirits, uniting with the water of melting snow, first produced heat; and, if we may be allowed the expression, much frigorific power was expended in bringing back the mixture to its former state: the acid should, therefore, be diluted so far as no longer to produce heat by adding water. This opinion was, in a great measure, well founded, and the acid was diluted, though, on the whole, not sufficiently to avoid entirely the inconvenience. Thermometers, filled with spirits of wine and oil of sassafras, were also tried; but it did not appear, though there was some irregularity in their contraction, in great degrees of cold, that it could influence the different experiments, or produce the appearances which professor Braun describes, who tells us that, with a frigorific mixture, he has sunk the oil thermometer to -124° , and the spirit one to -148° .

The different experiments are then described at some length, and the results are included in the following table, where the strengths are meant to show the proportional weight of marble which they dissolve.

	Freezing point.
Dephlogisticated spirit of nitre, whose strength =	,56 — 30°
	,53 — 19
	,437 — $4 \frac{1}{2}$
Common spirit of nitre, whose strength =	,54 — $3 \frac{1}{2}$
	,411 — $1 \frac{1}{2}$

Dephlogisticated spirit of nitre, by diluting with snow, became yellowish, and then of a green or bluish hue; and the addition of snow produced heat, till it arrived at the freezing point of the diluted acid. This point is much less cold than when

when they are more diluted, and much less so than when they are not diluted; so that when they are diluted to the strength of easiest freezing, they are at the heat of easiest freezing. These are some of the very unaccountable circumstances before alluded to, which we wish to have farther examined. The next experiments we must abridge, in Mr. Cavendish's own words.

" From these experiments it appears, that spirit of nitre is subject to two kinds of congelation, which we may call the aqueous and spirituous; as in the first it is chiefly, if not entirely, the watery part which freezes, and in the latter the spirit itself. Accordingly, when the spirit is cooled to the point of aqueous congelation, it has no tendency to dissolve snow and produce cold thereby, but, on the contrary, is disposed to part with its own water; whereas its tendency to dissolve snow and produce cold, is by no means destroyed by being cooled to the point of spirituous congelation, or even by being actually congealed. When the acid is excessively dilute, the point of aqueous congelation must necessarily be very little below that of freezing water; when the strength is ,21, it is at -17° , and at the strength of ,243, it seems, from art. 16, to be at $-44^{\frac{1}{2}}$. Spirit of nitre, of the foregoing degrees of strength, is liable only to the aqueous congelation, and it is only in greater strengths that the spirituous congelation can take place. This seems to be performed with the least degree of cold, when the strength is ,411, in which case the freezing point is at $-10^{\frac{1}{2}}$. When the acid is either stronger or weaker, it requires a greater degree of cold; and in both cases the frozen part seems to approach nearer to the strength of ,411 than the unfrozen part; it certainly does so when the strength is greater than ,411, and there is little doubt but what it does so in the other case. At the strength of ,54 the point of spirituous congelation is $31^{\frac{1}{2}}$, at ,33 probably $-45^{\frac{1}{4}}$; at least one kind of congelation takes place at that point, and there is little doubt but that it is of the spirituous kind. In order to present this matter more at one view, I have added the following table of the freezing point of common spirit of nitre, answering to different strengths."

Strength.	Freezing point.
,54	$-31^{\frac{1}{2}}$
,411	$-1\frac{1}{2}$
,38	$-45\frac{1}{4}$
,243	$-44\frac{1}{4}$
,21	-17

spirituous congelation

aqueous congelation

" In trying the first half of the dephlogisticated spirit of nitre, the cold produced was $-44^{\frac{1}{2}}$. The acid was fluid before the addition of the snow, and of the temperature of -30° , but froze on putting in the thermometer, and rose to -5° , as related in art 7.

' In trying the second part, the acid was about 0° before the addition of the snow, and, therefore, had no disposition to freeze. The cold produced was $-42^{\circ}\frac{1}{2}$.

Oil of vitriol having been exposed, in the night, to a cold of -33° ; in the morning, when the air was at -15° , was found nearly of the same temperature, and frozen to the consistence of hog's-lard. It was not completely melted till it had arisen to a temperature of $+20^{\circ}$; but at $+10^{\circ}$ some of it could be decanted, and the separated part did not differ in specific gravity or strength from the congealed part. Vitriolic ice also sinks in the acid, and contracts in freezing. In a cold of -30 , the best strength of vitriolic acid, to produce cold, appears that of ,605; and this strength is rather less in great than in moderate cold weather. Different experiments are then related, in which considerable degrees of cold are produced with spirit of vitriol, and the circumstances are explained very properly, except some which are not easily to be accounted for. On January the first, when the experiment was made in a large jar, the snow added quickly, and the materials previously cooled very considerably, the cold produced was $-68\frac{1}{2}$. Yet, on February the second, with more attention to the previous cooling, the thermometer sunk to $-78\frac{1}{2}$, and the mixture was then fluid. Mr. Cavendish attributes this great degree of cold, which has probably not hitherto been equalled, to the previous congelation of the acid; so that it was the united cold, from thawing the acid and the water. He thinks it not certain, that the vitriolic acid has any point of easiest freezing like the nitrous, and that the glacial acid owes its solid form to some other cause than its strength: it is most probably an additional proportion of pure air; for, though glacial, its fumes are very oppressive, like those of the dephlogisticated spirit of nitre.

A mixture of oil of vitriol and spirit of nitre did not produce so much cold as the former, when separate. Very highly rectified spirit of wine (whose specific gravity was ,8195), did not want any dilution, like the acids, to produce cold. It did not increase the cold above 10° , and seemed not capable of dissolving snow, when within six degrees of its aqueous congelation. Diluted with $1\frac{1}{2}$ its weight of water, it froze with the natural cold of the air, and its point of aqueous congelation is at -21° . The fluid part was stronger than the rest, and snow added produced no farther cold: this shews the congelation to have been aqueous.

At Henley-House, the natural cold was very great. On nine mornings it was not less than that of freezing mercury: there were four, in which it was more than 8° above (mis-

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printed below) that point; and one in which it was — 50°. We must now leave this interesting volume, of which our account may appear somewhat too far extended; but its very curious contents rendered it necessary for us to avoid mutilating them, by a slight or partial analysis.

The Miscellaneous Works of Charles Collignon, M. D. Late Professor of Anatomy in the University of Cambridge. 4to. 1l. 1s. served. White.

THIS collection is not announced by a preface, nor is the reader conducted by any clue to distinguish those works which have been already published, from others which now first appear. Many of those included in the first edition we recollect; but memory is an unfaithful guide; and what may appear to be new, some more fortunate remembrance may be able to detect among the passing spectres, which dazzle a while and are forgotten. Dr. Collignon never gained a considerable height in the meridian of medical reputation. He was distinguished rather as an elegant scholar than as an acute physician; and, in his own department, was rather a pleasing demonstrator than an accurate anatomist. The Miscellaneous Works before us do not display a depth of reasoning, an extent of knowledge, or a brilliancy of imagination. They are, however, neat, and often pleasing essays: they resemble rather placid brooks, which glide along and adorn the verdant meadows, than rapid rivers which astonish in magnificent cascades, or fertilize by seasonable inundations. A pretty numerous list of subscribers is annexed: we are sorry to find that his surviving relatives stand in need of such assistance.

The first essay is an imperfect fragment on duelling, which we believe was not before published. Dr. Collignon repeats what has been frequently said, and employs arguments which have already, by experience, been discovered to be useless. There is besides nothing very advantageous in the light in which these former arguments and observations are now placed.

The next attempt, to relieve the study of anatomy by references to the classics, has, we apprehend, already appeared, though some parts seem now to be first added. The observations relate to the parts of the body which are examined in their order. One example of our author's method will save a tedious description.

‘EAR—LOBE.—Pliny says, “Est in aura ima memoriae locus, quam tangentes attestantur,” and it seems they added, “memento.” Muretus speaks of a medal, where one man is represented touching the lobe of another man's ear, with this inscription, *Memento*. Servius says the ear was consecrated to

Memory, as the forehead to Genius, and the fingers to Minerva. The custom of retaining a witness, which was called *antestari*, was by taking hold of the party's ear, which custom, however, was dispensed with towards women, or where the party to be tried was of infamous character. This we learn from the *Perse* of Plautus.

"*Dordalus.* Nonne antestaris?

Saturio. Tuane ego causa carnufex

Quoiquam mortali libero aures atteram?"

Horace brings an instance in himself of this kind of *subpœna*, when his troublesome companion seizes on him.

"——— Licit antestari. Ego vero

Oppono auriculam."

There are several minute errors in this part of Dr. Collignon's work, and some little disregard of discoveries, which a professor of anatomy should have known. We were somewhat surprised at his not perceiving the reason why Tertullian calls the teeth the seeds of immortality, when it is so obvious that teeth are found in graves, where there are no other marks of a body having been buried. These parts resist the common powers of solution, by the hardness and the compactness of their texture. We shall insert the following passage, on account of its being curious. Fuller undoubtedly means the humeral artery: we have examined many authors, but can find no trace of the word. It should be sought after in the very old popular translations of anatomical authors.

"ENMONTERY.—In the year 1621, George Abbott, archbishop of Canterbury, being invited by the lord Zouch, to hunt a buck, at Bramphill in Hampshire, let loose a barbed arrow, and unhappily hit the keeper. He was shot, says Fuller, in his Church History, through the *enmontery* of the left arm, and the arrow dividing those grand auxiliary (q. axillary) vessels, he died of the flux of blood immediately. There is no doubt, I think, that his death was owing to the opening the axillary artery; but it is not easy to conjecture what part the *enmontery* is. I consulted the late Dr. William Hunter, who thought the enquiry curious enough to merit investigation, but neither by himself, or several ingenious surgeons whom he consulted, was he able to discover any thing.—Mr. Geary Cullum, an eminent surgeon at St. Edmond's Bury, for enmontery thinks we should read emuncitory, and that the old writers placed these in different parts, by way of drains. There is much ingenuity in this conjecture."

An error of some importance may be remarked towards the end, in the Appendix, where the author supposes that the Eustachian tube communicates sound. In fact, in the experiment quoted, the sound is conveyed by the teeth. If a watch be held on the tongue, without touching the jaws, the sound is scarcely

scarcely audible while the ears are shut. There are many similar errors, which seem to arise from the professor's having copied old authors, without the trouble of an attentive examination.

The character of Eudoxus is a cento of brilliant passages from different authors; but they form a piece so unequal, and so badly combined, that we hope this mode will not become fashionable. The best attempt of this kind was one which we lately saw, to connect the hints left by sir William Temple, as the outlines of future essays. Some of these have been filled up so much in the original author's manner, as to have deceived good judges, under the borrowed form of newly-discovered manuscripts. The Beauties of the Turkish Spy are selected and arranged under different heads, like the various prostituted beauties of admired authors, with which we were lately pestered.

'*Tyrocinium Anatomicum, or an Introduction to the Study of Anatomy,*' seems to have been an introductory lecture to Dr. Collignon's course. It is a pleasing essay, in which we meet, however, with little novelty. That part which relates to juridical anatomy, or those subjects on which a surgeon must decide in a court of justice, is particularly valuable. We greatly want some work sufficiently popular, to be within the reach of common capacities, and yet written with sufficient judgment and discrimination, to be relied on as a guide in these subjects. The medical evidences which have been sometimes given, are a disgrace to the profession and to humanity. The professor is necessarily short; but he is clear and exact.

'*The Enquiry into the Structure of the Human Body relative to its supposed Influence on the Morals of Mankind,*' has been already twice printed. We need not enlarge on it, as it resembles Dr. Collignon's other works. The following passage is sensible and animated.

'But it is not designed to deny, that we are liable, without great care, to be biased by some internal feelings. The sects of philosophers probably first arose, from the constitutional dispositions of their respective founders. It would not, perhaps, have been an easy attempt to have made Cato an Epicurean, or Mark Anthony a Stoick. Nor is it every one at this time of day, that can modestly doubt, or decently dispute. The dull and phlegmatic cannot soar with Plato, or think with Tully. The impetuous reap no laurels by a Fabian delay; nor the cautious post to conquest with a Cæsar's speed. But yet may we bend what we cannot break; and prune the luxuriances of what we cannot eradicate; and so blend the jarring ingredients of a faulty frame, as to become happy to ourselves, and profitable to others.'

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The ‘Determinatio Medica,’ which seems to have been spoken on the occasion of a public exercise, is written with classical elegance. The ‘Decision’ is in favour of an anatomical investigation of the cause of diseases. The principal arguments are, however, repeated in his other works.

‘Medicina Politica; or, Reflections on the Art of Physic (it should have been Science) as inseparably connected with the Prosperity of a State,’ is, in many respects, a weak performance. Our opinion, at large, was given in the Twentieth Volume, page 375, of this Journal.

The next work has also already passed through our hands, in its former detached state. It is entitled ‘Moral and Medical Dialogues;’ and our opinion, with an extract, may be found in Volume Twenty-eighth, page 42.

‘Explanatory Remarks on the great Utility of Hospitals for the Sick and Poor,’ are, in general, judicious and proper. We object only to the exceptions drawn from the causes of the complaint. An institution of humanity should never be made a tribunal of justice; and the only question that a physician or governor should ask is, whether the one disease can bear delay, either from its rapidity, violence, or the importance of the organ affected, better than another, when the admission of all who apply is impossible? These Remarks seem to have been written in the infancy of Addenbrooke’s Hospital, when, from the number who applied, many were of course rejected.

Three Poems are then added, probably never before published. The first is styled ‘Messiah,’ and is of the descriptive kind, comprehending the birth, principal actions, and lessons of our Saviour, with his death. The next is styled the ‘Hermit,’ and contains the salutary lecture of an anchorite to a young man of fashionable taste and fashionable vices. We shall select the first lines of this poem, which are a little exceptionable, where we have distinguished the words by Italics; but, in other qualities, rise greatly above the general even tenor of Dr. Collignon’s poetry.

‘Where livid lightning shot a fork’d glare,
And bursting peals of thunder rent the air,
Where sable clouds in cataracts of rain
Pour’d down the hills, and smoak’d along the plain,
The young Alphonso urg’d his trembling way,
In search of shelter from this *rage of day*:
A youth—to pleasure prone; who fondly sought
Whatever flatter’d sense, or murder’d thought.
Early through every stage of vice he ran:
Maturely wicked, scarce completely man.
But God’s kind providence this day assign’d,
To beam instruction on his darken’d mind;

His senseless soul with heavenly truth to warm,
To heal by terror, and to save by storm?

The last poem is called ‘Happiness.’ It is a moral epistle, addressed to a friend. It is strictly moral, and pleasingly, though not deeply, philosophical. We think it contains the best lines in the whole collection. In general, Dr. Collignon’s poetry is too nearly allied to prose; the lines flow in easy numbers, sometimes weakened by expletives, but seldom dissonant from the collision of jarring consonants. They display a humane heart, and a frame of mind truly religious. Let the pride of learning, and the brilliancy of wit hang their diminished heads, if without the lustre of these superior qualities; for, while ‘wit is a feather,’ ‘an honest man’s the noblest work of God.’

Proceedings for Sunday Schools, and a Plan of that in Stephen’s, Norwich; established October 16th, 1785. 8vo. 6d. Chase, Norwich.

Institutions of this kind are now numerous; and, as many publications on the subject at present lie before us, we shall take an opportunity of considering them together, and to give our sentiments on these establishments somewhat more at large than the former publications seem to have allowed.

It has been a favourite position with many metaphysical authors, that human minds, with respect to their capacity for improvement, are in general equal, in the different classes of mankind; and that of course the design is no less benevolent than politic, to render instruction extensive, and the means of acquiring it easy. This opinion we are not ready to adopt implicitly, for reasons too long to engage in at this time. It is a pretty certain fact, that the capacities and powers of the immaterial principle depend greatly on those of the body; and, as the latter are conveyed by inheritance, so the former, though with less certainty, seem to depend in a great degree on the progenitors. It is certainly the case in the animal kingdom; and Horace, though perhaps the sentiment was rather dictated by a refined adulation than by philosophy, tells us, ‘fortes creantur fortibus & bonis.’ There is, however, a wide difference between this opinion and that which confines individuals of the lower class to the leaden fetters of ignorance, and compels them to be serviceable only, in consequence of powers merely animal. The medium is the safest track; and perhaps we shall combine every principle of policy and humanity, by laying the foundation of a building, and by clearing away the impediments, which might impede a happy

happy genius, that may occasionally arise. By being carefully instructed in their duty, and enabled to instruct themselves by reading ; if they are at the same time led to render their reading more useful by a habit of reflection, there is little doubt but that common people will be rendered better servants, more able assistants, and more useful members of society. We lay less stress on an opinion which has been confidently and plausibly urged, that the cause of truth is assisted by enlarging the sources of enquiry. We have great reason to think, from experience, that the unassisted mind whose judgment is not matured by frequent habits of enquiry and decision, the unenlightened reason which has not been taught to draw consequences with precision, and to distinguish with accuracy, might easily be lost in doubts, or led away by delusions. These may hold the scales of knowledge, but should never presume to employ them.

While these societies attempt to go no farther than the path pointed out, while their instructions are of the general and fundamental kind ; while their religion is manly and rational, not perplexed by the dogmas of contending sects, or warmed by the effusions of fanaticism, we highly approve of the plan. We think these cautions the more necessary, as it is not uncommon with some sects to imagine that their principles only require to be known in order to be universally embraced ; and fondly think that, by instructing young minds in the means of searching out the truth, particularly in the way in which they think it may be found, they must ultimately increase the numbers of their own persuasion. In general, the conduct of the institutions has been very proper ; and we have reason to suspect, from some incidental hints, that inconveniences may arise from this source rather than to think that they actually exist.

A strong objection at first occurred to the plans proposed, which, from experience, we find to be in a great degree visionary, and, from reflection, perceive may be compensated by other means. The inconvenience we apprehended related to the health of the children, particularly those employed in manufactories, by taking from them their day of exercise and relaxation. Yet diseases from this cause have not occurred, and the cleanliness required will certainly supply the defect. Where the children are employed in the more unwholesome trades, as the cotton and woollen manufactures, it will probably still demand additional attention. It is time, however, to consider more particularly the work before us.

We perceive that Sunday schools have been established at Gloucester, at Leeds, at Manchester, at Birmingham, Bangor, Hardington in Northamptonshire, Shrewsbury, Norwich,

Wake-

Wakefield, and Newcastle upon Tyne. In some, the institutions and the pupils are numerous; in general they seem to be well conducted; and in all, to be successful in reforming both the manners and the dispositions of the children. Their good effects, in these respects, at Gloucester, are said to be eminently conspicuous.

* Wherever they have been established, they answer every expectation: and at Shrewsbury the auditors of their hospital have inserted in it their printed reports, as a matter of the greatest and proved utility; one of these reports was sent to the Norwich hospital. From every place it is asserted, that the manners of the people are reformed; and that happiness and comfort are enjoyed by the benefactors, and the instructed beyond conception; that the parents desire to be admitted to learn with their children; that the aisles of the churches are crowded by those poor people, who were never seen there or in any other place of worship before; that cursing and swearing are but seldom or never heard; that cleanliness prevails among them, from the frequent calls and persuasions of those who visit them; and an obliging disposition takes place of an injurious and rude behaviour.

In Norwich the institutors seem to have extended their plan to persons of maturer age; and we are credibly informed, that the example of their parents and elders adds greatly to the attention of the children. The attachment of the latter to their school is said to be so great, that it is more difficult to induce them to leave it for a little recreation, than to detain or bring them back. For the particulars of the plan, we must refer to the work. We very much approve of it, particularly of the addition of psalmody, to relieve the more tedious lessons. We must only beg leave to inculcate, very forcibly, the cautious choice of school-masters, and the unremitting attention of visitors, on whom the prosperity of the institution will very greatly depend, notwithstanding the most judicious rules for its conduct.

Sunday Schools recommended in a Sermon, preached before the dissenting Ministers in the northern Counties, at their annual Meeting, at Morpeth, June 13, 1786. To which is added, an Appendix. By the rev. W. Turner, jun. 8vo. 1s. Johnson.

WE introduce Mr. Turner's sermon in this place on account of the Appendix, which contains a judicious account of the schools at Newcastle, introduced by a short history of the original attempts. The public know that they are indebted for the advantages which may result from these institutions, to Mr. Raikes, printer of the Gloucester Mercury;

cury ; and, whatever may be ultimately its success, the worthy and benevolent inventor will deserve the highest encomiums. Mr. Church's testimony, relating to the success at Gloucester, deserves to be transcribed.

‘ I asked him whether he perceived any alteration in them, since they had been restrained from their former prostitution of the Lord’s day ? — “ Sir, said he, the change could not have been more extraordinary, had they been transformed from the shape of wolves and tygers to that of men. In temper, disposition, and manners, they could hardly be said to differ from the brute creation. But since the establishment of the Sundays’ schools, they have shewn that they are not the ignorant creatures they were before. When they have seen a superior come, and kindly instruct and admonish them, and sometimes reward their good behaviour, they are anxious to gain his friendship and good opinion. They are also become more tractable and obedient, and less quarrelsome and revengeful.” ’

Mr. Turner instituted the Sunday schools at Newcastle, and his plan, though somewhat different from that at Norwich, is probably not less beneficial in its consequences. The expences attending these institutions are very inconsiderable.

The subject of his sermon is a very proper one ; it is taken from the fifth verse of the eleventh chapter of St. Matthew— ‘ The Poor have the Gospel preached to them.’ It is properly addressed to the associated dissenting ministers, at their annual meeting, at Morpeth, because the plan and the arguments which may be used in its favour would, in this way, be more extensively diffused. The sermon is judicious, rational, and perspicuous. Mr. Turner combats the arguments which have been urged against the plans chiefly on this ground, that no part of education employs the hours of the sabbath, but what establishes the foundations of piety and virtue. Writing and arithmetic, he seems to think, should be excluded.

A Sermon, preached on the 21st of May, 1786, in the Church of Hardingsome, on the Establishment of a Sunday School at that Place. By the Rev. Robert Lucas. 4to. 1s. Robson.

IN the rules, adapted for the schools at Hardingsome, we perceive that writing is introduced with a seeming reluctance ; but it is still allowed to be taught. Their rules are short and clear ; but the conduct of the institution is not so strictly, so scientifically (if we may be allowed the term) regular, as that of Norwich. We fear the visitations are not equally exact, and we would again beg leave to inculcate so useful a part of the design.

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The Sermon, from the 14th verse of the 10th chapter of St. Mark,—‘Suffer little Children to come unto me, and forbid them not,’ is a plain but strenuous recommendation of these schools, and may rather be styled a benevolent than a highly finished performance. It is probable that the author wished rather to speak to the heart than the head, to the affections than the judgment; to level his arguments to the comprehension of every individual. We mean not, even in a remote degree, to insinuate that it is defective in the reasoning; that which he employs is clear and accurate. The following short and plain account of the views of the institutors is worth transcribing.

‘Their object is not to make scholars of the children of the poor, but good Christians, and useful members of society: it is to introduce among them a decent and orderly deportment; and, particularly, a becoming observance of the sabbath; an habitual neglect of which is, unquestionably, the foundation of all those crimes, which so greatly, and so justly, alarm the minds of the public.

‘For, what does the neglect of the sabbath, among the poor, imply? Does it not imply an abandonment of almost the only means of being informed of their duty? If the younger poor do not attend the public ordinances and instructions of that day; let me ask—where will they obtain a knowledge of what they are to practise? Will it be acquired at their respective homes? Happy for the children it is, if the example of their parents do not rather encourage them in evil. Instead of guiding them with parental authority in their various duties, their conduct too often spreads a pernicious influence among their offspring; who grow up, fitted only to continue the same to their posterity.’

A Sermon, preached October 8, 1786, in the Parish Church of Hardingshorne; supplemental to a Sermon preached there, by the Rev. Robert Lucas. 4to. 1s. Robson.

Children, obey your Parents in the Lord; for this is right: honour thy Father and thy Mother (which is the first Commandment with Promise); that it may be well with thee, and thou mayest live long on the Earth.—And, ye Fathers, provoke not your Children to Wrath; but bring them up in the Nurture and Admonition of the Lord. Ephesians, ch. vi. ver. 1, 2, 3, 4.

THIS is a very proper supplement to the former. It exhorts parents to enforce the instructions received at the Sunday schools, by their precepts and examples at home; by their attempts to check every evil propensity in its bud, before it expands to real crimes. The subject is judiciously chosen; the exhortation animated, forcible, and perspicuous.

The Sabbath. A Sermon, preached in the Parish Church of St. Stephen's, Norwich, to promote the Establishment of Sunday Schools. By the Rev. Lancaster Adkin, A. M. To this are added, the Rules adopted for this Institution in that Parish.
8vo. 1s. 6d. Wilkie.

MR. Adkin is the author of the ‘Proceedings for Sunday Schools,’ which was noticed in our first article on this subject; and he also subjoins the rules for the school at Norwich. His text is from Exodus. ‘Remember the Sabbath Day to keep it holy.’ It might have been expected, that this warm advocate for Sunday schools should have shown, that the important business of a virtuous and religious education was by no means an improper employment for that day, when the objects of the design were precluded from the advantage of it on others. His Sermon consists, however, of accumulated evidence, from the Old Testament, to establish the *strict, literal observance* of the seventh day, and at last allows of the substitution of the first for the seventh, because it keeps to the *substance and spirit* of the precept. If the first part were to be pushed so far, the other should have been carried somewhat farther. A particular day could not so forcibly have been enjoined by divine authority, and properly changed by the dictates of men. This has been frequently a stumbling block to the Gentiles; but it admits of a solution so plain, so simple, and so obvious, that, if the fervour of our author’s eloquence had not carried him to greater lengths than the *tenor and spirit* of the Scriptures warrant, he would not easily have missed it. It was certainly incumbent on so strenuous an assertor of a strict literal interpretation of the fourth commandment, to have rescued the Sunday schools from the imputation which has been cast publicly on them, viz. of their being a profanation of the sabbath. This work resembles Horace’s picture, where

‘ — nec pes nec caput uni
Reddatur formæ.’ —

and we can only account for it, by supposing this Sermon not originally intended for the purpose in which it is now employed.

We cannot agree with our author, in thinking the language of the commandments ‘the most *beautiful and sublime*, with an elegance that must captivate the understanding.’ It is undoubtedly forcible and perspicuous, with all the majesty which arises from an expressive and simple brevity; more cannot be allowed: but our author’s good intentions will cover greater faults than we have detected.

Appendix to the Memoirs of Baron de Tott; containing an Answer to the Remarks of M. de Peyssonnel, by M. Ruffin: a Historical Memoir concerning the Druses, a People inhabiting Mount Lebanon; and a Catechism and various Extracts from their sacred Books. Translated from Drusean Manuscripts, by M. Venture de Paradis: and from the French, by an English Gentleman at Paris. 8vo. 3s. Robinsons.

THE Memoirs of the Baron de Tott have excited general attention. A few months ago they called forth the Remarks of M. de Peyssonnel, who had resided many years in Turkey, as French consul; and a reply to that author is now published by M. Ruffin, a gentleman particularly well acquainted with a great part of the transactions related by the baron. It cannot be expected that we should give a minute account of the observations of M. Ruffin; the nature of detached remarks renders such a discussion superfluous; it is, therefore, sufficient for us to say, that he vindicates the authority of the ingenious baron from the objections produced by his commentator, in a variety of instances. The result is, that the information contained in those celebrated Memoirs, is confirmed by M. Ruffin, whose sanction must give additional weight to the narrative of baron de Tott.

The Answer to M. Peyssonnel is followed by a Historical Memoir of the Druses, a People of Mount Lebanon. It appears that the government of the Druses is feudal. A prince, to whom they give the title of Emir, occupies the first station, in quality of lord paramount. He receives from them fealty and homage; but his power is confined within narrow limits; it extends not to the making of new laws, or over-awing the people. His finances consist only in the revenues of his personal estates, the produce of the customs, and the farm of the country appropriated to his peculiar profit. The Druses have no fortress in their country; but their mountains, inaccessible to an enemy, are a sufficient defence.

The mountains of Lebanon are every where intersected by vallies, of which the labour and industry of the Druses have formed most delicious gardens. But the chief riches of these mountains are mulberry trees, which are cultivated with the greatest success.

The author of this Memoir is of opinion, that *the old man of the mountain* was no other than the commander of the Drusean nation; and he founds this conjecture on the following reasons.

‘ First, old is only the literal translation of cheik; secondly, the crusaders, who have spoken of him, fix his residence

in the mountains of Syria, where the Druses were dispersed; and, in the third place, the idea of the transmigration of souls, which this sect had adopted, added to a blind submission to the orders of heaven, or of him who spoke in its name, was very capable of inspiring the Druses with that courage necessary to those astonishing sacrifices of which history preserves the remembrance; especially when aided by the belief of a religion newly established, when fanaticism has so great an influence over the minds of men.

' Let us add, also, as the last proof, that the emir of the Druses has always had in his service a chosen troop, called the fedaviés; that is, persons disposed to sacrifice themselves for his service.'

' The right of asylum is sacred amongst the Druses. A man pursued by the vengeance of government, if he can reach the mountains, is sure of his life. Hospitality is greatly honoured by this people; and they are no less distinguished by their temperance.'

' It is customary, says the author, with every family to lay in such a stock of provisions as is necessary for the current year; and, when an unexpected guest arrives, to share with him; after his departure they take care to diminish their daily consumption, till, by economy, they have recovered what they had expended.'

' Their provisions consist, in general, of burgoo, wheat boiled, and afterwards dried in the sun, with which they make soup; a fat sheep, which they cut in very small pieces and preserve in butter, after having roasted it quite brown and crisp.—They make much use of pillow (rice baked with butter or fat), but above all of eggs, which they dress whole, between two plates or dishes, and which they call makla-baid.—The utensil they make use of is very singular: it is a dish made of cows-dung kneaded with earth. The more it has been used the more it is held in estimation.—Amongst the furniture which composes the marriage fortune of the girls, a dish of this kind is never wanting.'

For other entertaining particulars relative to this people, we must refer our readers to the volume.

Next follows a Dialogue between Hakem Bamrilla, Commander of the Faithful, the High-Priest of the Synagogue, and the Patriarch of Alexandria. Translated from the Books of Hamzah, and from an original Manuscript.

This Dialogue is succeeded by an Extract from an Epistle entitled the Right Way; translated, likewise, from the Books of Hamzah: an Extract from an Epistle entitled the

End and the Counsel; translated from the same author; and by a Literal Translation of a Catechism, containing the Doctrine of the Druses.

These several productions are rendered interesting by the simplicity which pervades them, and by the relation of the whole to a people hitherto very imperfectly known, either from the writings of the traveller or historian.

FOREIGN LITERARY INTELLIGENCE

(Continued from p. 298.)

THE various societies, at present established on the continent, have rendered the prize-questions so numerous, that we have been deterred from engaging in this part of the Intelligence to be collected from our neighbours. It may indeed be alleged, that it is the surest means of ascertaining the opinions of foreign philosophers, to observe what they may think sufficiently important to deserve a prize; but, independent of fashion and of caprice, which sometimes decide in these tribunals, we seldom receive the dissertations which are crowned; and when they are published, they are not always found so very meritorious as to deserve a prize in our awards. Yet we mean to select the most important subjects which occur, particularly from the societies whose credit is best established. At the recommendation of a very respectable correspondent, we shall now give the substance of part of the *Programma*, lately published by the Dutch Society of Sciences at Haerlem, for the present year. We must then proceed to execute the promises we have long since made, viz. to collect the experiments and opinions of foreign chemists relating to the decomposition of water; a subject of greater importance than has probably ever engaged the attention of the philosophic world. In a future Number we shall return to the works of this and other Societies.

The Society met the 22d of May last, and examined the improved Memoirs, and one new one on this question. 'What are the real Species of Aerial Fluids?' The prize was bestowed on the joint authors of the new essay, messieurs A. Paets van Troostwyk, and J. Rudolph Deiman, doctor of physic: the double gold medal was divided between them, by giving each a single one.

The prize, for the question relating to 'the Dropsy of the Chest, properly formed,' was bestowed on Dr. J. Veirac. The decision on the question relating to the Education of Young People in Batavia, is deferred, as well as that relating to the Theory of Dr. Crawford, on Fire and Heat. The latter question is somewhat changed; and we hope that our countryman will explain his sentiments more fully in the new edition

of his work, which we hear that he is preparing. The new question is the following. How far can a Theory, on the Nature of Fire and the Cause of Heat, be carried, on well-established and decisive Experiments, hitherto made; and what are the Experiments to be considered as hitherto indistinct on this subject? In this new trial, the indecisive experiments must be repeated.

'On the Condenser' of M. Volta, Jacob van Breda; to determine 'the Celerity of Rivers,' Mr. Chretien Brunings have received the prizes. The question relating to the 'History of the Air of the United Provinces,' is again proposed, as the former answers are judged insufficient.

The following question is proposed for the prize of 1788. 'As it is not easy to judge of the useful Consequences of a Discharge of Water, without attending to its Return, and to the local Circumstances accompanying the Discharge, can the Utility, and consequently the Necessity, of the Counter-dike of Rhynland be proved theoretically, a priori, or by a certain Experiment in Case of an Inundation?'

The next question is for 1787. 'How do Plants receive their Nourishment? What is favourable or hurtful to them in this Respect? and what practical Knowledge can be drawn from what is already known, either for the Advantage of Agriculture, or the Culture of Plants in general?'

The prize to be decided the first of November, 1786, is on the following question; 'How far can we collect, from the Experiments of M. Sennebier and others, added to new and decisive Experiments, the Circumstances in which Plants, in their natural State, absorb Air from the Atmosphere? Of what Quality is the Part of the atmospheric Air which is absorbed? What are the Means by which this Function is performed? What are the Changes produced in the Air in Plants? In what Circumstances, and in what Manner, do Plants return the Air which they have absorbed; and of what Advantage is this Respiration of, to Vegetables?'

The next new question is to be answered before the year 1787. 'What are the most ready and efficacious Means to introduce and render the Use of the Dutch Language familiar among the Malays, the Japanese, the Cingalese, and the Malabars?'

The following question is a patriotic one. 'What are the Objects of the Natural History of the United Provinces, into which the most careful Enquiry can be of Service to our Country and to Mankind? A simple Nomenclature is not alone required, but an Account of the Motives which lead the Author to expect Advantages from the Objects pointed out.' The Memoirs must be sent before the first of November, 1787.

The usual modes of sending prize-dissertations are to be followed. The dissertation is to be distinguished by a motto, and the same motto is put on a sealed billet, which contains the

author's name and place of abode. The author of the distinguished dissertation is discovered by breaking this seal: the other billets are burnt unopened. We shall resume this account in our next Number.

The Experiments on the Decomposition of Water were received on the continent with the greatest astonishment and pleasure; for experiments, with a similar object, were then making in different parts of Europe, as well as in France. Those of Mr. Cavendish were repeated in France with success; but even there, some varieties in the result of the experiments, induced chemists to hesitate about the conclusion: the conclusions were publicly opposed by M. de la Metherie, almost immediately on the appearance of the experiments. In Italy the differences were more apparent; and the first chemists who publicly engaged in this warfare, so far as we know, were messieurs Giorgi and Ciogni. Signior Giorgi's first accounts were published in the Journal de Physique, for 1785; and they were published early in 1786, at Florence, in a separate work. A former Latin dissertation is mentioned, which we have not seen, and which we were less solicitous about, since its substance is contained in the Italian work. The Florentine chemist, who preserves the credit of the experimental Academy (Academia del Cemento), obtained air of nearly an equal weight to the water employed, when the steam passed through tubes of copper, porcelaine, and glass. It was somewhat aromatic, which led him to suspect that the odorous principle was a component part of the water, and it was rather more pure than common air. It never contained fixed air, and inflammable air only occurred when it passed through tubes of iron. This decomposition took place at a degree of heat very little above boiling water, and only when the tubes were very short. Many observations have been made on these experiments; they have led to much doubt, and a general hesitation. It is asked, how tubes of six inches in length can be luted securely so near fire? and it has been asserted with confidence, that air no longer appears after the tubes are calcined. Water, fixed by a solution of salt, will certainly bear a strong heat without decomposition. Signior Giorgi observes, that M. Volta considers water as not admitting of decomposition, that it forms inflammable air in consequence of its union with phlogiston, and pure air with the matter of heat. The foreign chemists have entered so warmly into this contest, that we may suspect them to have been influenced by Lucretius. If an indifference to religion is a striking feature of the present age, the doctrines of Epicurus have made no little advances.

*'Immutabile enim quiddam superare necesse est
Ne res ad nihilum redigantur funditus omnes.'*

M. Fontana came early also into this contested field. His Memoir, published at Florence, was followed by a Letter to Dr. Ingenhouz, and another to the chevalier Lorgna. He allows

that water is lost in the experiment, but contends, that the iron tube gains in weight in proportion to the water lost. He tells us that it is ten to one but that solders of tin, and lutes of wax, unite pieces of iron so imperfectly as to admit of the passage of air, and that the most accurate examination cannot detect the apertures. The only methods of effecting this, he observes, are to plunge the tubes into water, and to blow strongly into them, and observe if any air escapes; or to fill the tubes with water, and observe if they wet the hands, or moisten paper applied on the outside. The water should be kept cool during the whole experiment, and renewed when hot.

Having taken the exactest precautions, he proceeded to the experiment, but we can only give the results. All the air which he obtained from water, during three hours, was not one-fourth of the contents of his vessels. It escaped in consequence of the rarefaction, and resembled atmospheric air, with a little odour like that of fennel: on cooling the apparatus an equal bulk of water rose into it from the cistern. The odour proceeded from a very slight effect of the water on the iron. He remarked that the thermometer always sunk on letting in the water. It is common for cold to be produced during the formation of vapour, and this fact explains the vulgar paradox, that the bottom of a tea-kettle full of boiling water is cool, and when the boiling ceases, hot: in fact, heat is an ingredient in steam. The farther end of the tube sunk a little too, at the time the water was admitted, which arose from a sudden contraction of the lower side on which the water fell. He found that he could obtain as much air as he would on making a very small aperture in the tube, but that a bubble of water would occasionally stop it, and the water would rise in the syphon as if the apparatus was entire. This fact he seems to have accurately ascertained. These experiments are confirmed by the testimony of M. de la Metherie, who appears to have repeated them.

New Experiments were published in the *Journal Polytipe* (a new miscellaneous Journal, published at Paris), by M. M. Lavoisier and Meunier. They obtained 248 grains of inflammable air by the passage of water through a hot tube. The iron became heavier by 1709 grains, which equalled the weight of water that had disappeared minus 147 grains. But the tube was found pierced in many places, which rendered the experiment doubtful. On burning this air with pure air, by means of the electrical spark, they obtained water, containing in every ounce five grains of nitrous acid, and about one-seventh of the air was not absorbed. In the union of nitrous with pure air, the airs are absorbed in part; they abandon the water which they contain, and we procure nitrous acid. In other instances, from the combustion of inflammable and pure airs, some fixed air is obtained.

M. Fontana's Experiments did not pass without remarks. M. Adet, a celebrated chemist, examined them with care; and this

examination may be found in the *Journal de Physique* for June last. He contends that the heat, employed by the Italian chemist, was not sufficient for the decomposition of water, as well as that the calcination of iron by steam only, shows that it must have acquired vital air, which can only be produced by decomposed water, while its other ingredient appears unchanged. M. Adet considers M. Fontana's arguments very particularly, and answers, with propriety, the objection against a fluid being formed of two gasses: indeed there is a similar fact, generally known among chemists, viz. the formation of nitrous acid from nitrous and pure airs, each permanently elastic and equally transparent. The small quantity of fixed air, which remains after inflammable and pure airs, by exploding, have produced water, is a source of great difficulty. The water is said by some to be deposited by the gasses, and to leave this residuum; but M. Adet supposes it to arise from the impurity of the airs. The other arguments rest chiefly on the objections of the Italian chemist, who is unwilling to admit that pure air is an ingredient in the calces of metals, and is eager to find some change in the state of the water itself, independent of decomposition, to account for the calcination of the iron. To his triumphant question, Why will not tubes of other metals contribute to the decomposition of water? he answers very properly, that it may depend on a different affinity to its component parts. The experiment mentioned above, where the tubes were pervious to air, he thinks proves nothing; for the air was not atmospheric, but inflammable; the iron was calcined, and, of course, contained the vital air; by comparing these quantities, he finds that they will equal the quantity of water lost.

M. de la Metherie, an intelligent chemist, and the compiler (*redacteur*) of the *Journal de Physique*, immediately replies to M. Adet. He examines his arguments particularly, and answers them with various success. The disputes degenerate fast into that on the old subject of phlogiston; and M. de la Metherie pushes the argument, which we formerly employed, relating to M. Lavoisier's adopting a new principle instead of phlogiston (a coaly matter), so as to produce conviction. The different affinities which M. Adet had mentioned, to explain why water was not decomposed in tubes of every kind, are attacked in this manner. No substance has a greater affinity to pure air than phosphorus; yet phosphorus, in boiling water, will not inflame or decompose the water; on adding an alkali, a copious production of inflammable air ensues. We suspect that this argument is not equally successful with some others employed by our author. M. Adet may well allege, that in this case the heat is not sufficient for the affinities to take place, except those of the phosphorus. To the deposition of water from pure and inflammable airs, in consequence of explosion, and the residuum of fixed air, M. de la Metherie observes, that from mixing

pure air and nitrous air, the same residuum remains, viz. fixed air and a little phlogisticated air. 'Thus, says he, in this instance too, the airs unite to form a fluid, and abandon the water they hold in solution.' The following experiment, he observes, will make it still more evident. A piece of coal was calcined for an hour and half in the heat of a forge, in a crucible covered with another, and closely luted except at the top, where there was a small hole. Now this coal can contain no inflammable air (indeed Lavoisier denies that coal, as well as iron or zinc, contains phlogiston); a small quantity of this coal is introduced into a receiver full of mercury, pure air was added, and the coal inflamed with a little pyrophorus, yet the sides of the vessel were covered with a dew, the pure air absorbed and changed into fixed air. M. Lavoisier must reply to this experiment in his own way: we confess we do not think it proves the author's position. The other remarks, on the vital air of calces, M. de la Metherie answers in the way we have often argued, that the separation of pure air from metals in this state, does not show that this portion alone was absorbed in calcination, but that it is less obstinately retained.

M. Berthollet next engages in this controversy. He contends, from the extreme purity of the inflammable air, in messieurs Lavoisier and Meunier's experiments, that the atmospheric air could not have had access to contaminate it. The slight deficiency of weight, accounted for in those experiments, must be owing to the uncertainty in weighing substances of this kind. The fixed and phlogisticated airs in the residuum, when pure and inflammable airs are exploded, certainly arose from the red precipitate, which always contains a little nitrous acid. M. Lavoisier found that filings of iron, kept a long time in distilled water, produced some inflammable air: that iron not being able to decompose water, without heat or some other affinity, should be no objection to the theory. When nitrous and vital airs are mixed over dry mercury, M. Fontana himself found, that the diminution of air is very slight, if any. In this he is supported by Mr. Kirwan, M. Monge, and Dr. Priestley. When nitrous acid is recomposed by pure and nitrous airs, with proper precautions, no fixed air appears. These are the allegations of M. Berthollet; the rest of his remarks relate to the coaly matter, and his own explanation of M. de Metherie's experiment with phosphorus.

M. de la Metherie replies, but adds little to the elucidation of the principal question. He explains Fontana's experiment, alluded to by Berthollet, which we shall add. In mixing the airs, some water is always formed; but the new acid attacks the mercury, and produces fresh nitrous air, which cannot be decomposed without a greater proportion of pure air.

In this state is now this celebrated question, in which we perceive more difficulties than certainty. We have endeavoured to relate the facts in the shortest manner in our power, and we hope

hope we have rendered them intelligible. On the whole, there is great reason to think water really a compound, and, in fact, compounded of pure and inflammable airs; but the establishment of the position we must leave to future experience. We are surprised so little use has been made of the æolipile, and Papin's digester, in this controversy.

Histoire & Memoirs de l'Academie des Sciences. (Concluded from page 308.)

WE are still wandering in the chemical department of this volume, which so far engages the attention of philosophers, that almost all the new improvements are of this kind. The French chemists do not exceed us in the importance of their discoveries. If they boast of Berthollet, Lavoisier, and Cornette, we can with equal pride produce Cavendish, Priestley, and Kirwan. But an envious rivalry is almost forgotten in literary subjects: it is the race where a generous emulation, rather than a mean selfish superiority, is displayed: may it be forgotten also in commerce, and the only contest be, who shall do the greatest service to their country and to mankind.

We concluded our last article with an account of M. Berthollet's Memoir on the spontaneous Decomposition of vegetable Acids, those transitory varying Forms which Vegetables assume in their Passage from a saccharine to a putrid State. There is only one point on this subject which remains to be examined. The acid of sugar seems to be in the permanent state of the mineral acids; and M. Scheele has found this acid developed by nature in the acid salt of wood-sorrel, which accounts for its resisting decomposition; the latter being only the saccharine acid, in excess, joined with alkali. If the wood-sorrel yields an essential salt, grapes do the same; for M. Bucquet prepared tartar from unripe grapes, and we know not in what respect they differ. Mr. Beddoes has promised us the remaining Essays of Scheele: if we do not soon receive them, we shall give some account of his enquiries on the subject of vegetable acids, in this department of our work.

The next Memoir is by M. Berthollet, on the Causticity of Alkalies and of Lime. We have explained our author's sentiments on this subject, in the abstract of his experiments, which he read to the Royal Medical Society. The article before us contains his experiments at length, on the latter part. We may shortly repeat, that caustic alkalies combine with animal matter, and become a kind of neutral, from which the animal matter may be precipitated, no longer susceptible of putrefaction. The action of lime is very different, and depends on its powerful attraction for water: so calcined magnesia, which is not soluble in water, is not caustic. If the animal neutrals are disjoined by alum, the animal matter remains intimately combined with its earth, which explains the effect of earth of alum in fixing colours

colours on wool and silk, or in preserving bodies buried in it. Alkalies do not combine with pure vegetable matter, and the animalised alkali was found very different from the Prussian.

M. Lavoisier, in his Memoir on the Means of increasing the Intensity of Fire, examines the several means hitherto invented, for bringing the solar heat to a focus, either by means of reflection or refraction. He finds all these methods expensive and inconvenient. He first thought of increasing the heat of fire by a blast of vital air. It was an ingenious thought: machines of this kind, which resemble blow-pipes, answer very well. The contrivance is simple: a box of pure air is pressed on another full of water, and the air forced through the tube, drawn to a very small point. Those who are in possession of a machine contrived, instead of a blow-pipe, by a Mr. Warltire, an ingenious lecturer in natural philosophy, for the purpose of saving the breath, can easily use it, either for vital or common air. M. Meusnier improved this machine, by a contrivance to measure the bulk and density of the air employed, which, with the slight alteration of having a pane of strong glass in the superincumbent cistern of M. Warltire's machine, and knowing the proportion of the tube from which the air issues, to that of the cistern which contains it, may be easily effected. M. Lavoisier has employed it in the analysis of precious stones, and has already discovered four different species, independent of the diamond, which is wholly inflammable. The first, the ruby and saphire, soften in the fire, so as to form one body. They are in no degree volatile; and their colour is altered without being destroyed. The hyacinth loses its colour, but in other respects resembles the ruby. The other kind, of which the topaz is a species, are discoloured, and melt in white opaque globules, like porcelaine or white quartz. A great number, of which the emerald is one, lose their own colour, and melt into an opaque and coloured glass. In another Memoir, the effects of this flame on the more refractory earths will be related.

Gold and silver submitted to the action of this new flame, become volatile: other metals burn. Metallic calces, and terra ponderosa, burn in the same manner, which confirms Bergman's opinion, that the last is only a metal in disguise. Earth of alum vitrifies alone: alkaline earths, though they contribute to the fusion of others, do not fuse without addition. Flints are fusible; quartz give some signs of fusion, but rock crystal is entirely refractory: every kind of salt is volatile. The historian gives great praises to Lavoisier for the application of this air; but greater are due to Priestley for the discovery, and for pointing out this very property of augmenting the intensity of fire.

The next Memoir is on the Salubrity of the Atmosphere: there is much reason to suppose that this is owing to the proportion of pure air, of which a given bulk of atmospheric air con-

contains about one-fourth. The method is the usual one of the eudiometer; but it is well known that nitrous air is not always pure, or adulterated, in the same degree. If we knew the proportion in which very pure air and unadulterated nitrous air combine, so as to form nitrous acid, we might easily show the quantity of vital air in any given specimen of common air, either by employing more than enough nitrous air; or, if we know certainly the strength of the latter, by having an excess of vital air. M. Lavoisier found that from sixty-six to fifty-nine parts of pure nitrous air were required to saturate forty parts of pure vital air; so that by these trials we can ascertain the proportion of vital air, at any time present in the atmosphere, to a hundredth part. The proportional quantities, at different times, may be ascertained more accurately; and it is probable, as is alleged, that a slight difference in the quantity of vital air makes no great difference in the salubrity of the atmosphere. In these, and similar experiments, Mr. Cavendish's precautions should be always particularly attended to.

M. Lavoisier, in the following Memoir, examines the state of a metal dissolved in an acid. It was once concluded that the metal was simply dissolved: we have since found that it is changed. It certainly is calcined previous to its solution, and, in calcination in a menstruum, undergoes the same changes as if the operation was performed by heat. Lavoisier's method was the following one, according to his own system. Suppose a solution of iron in the nitrous acid: we have iron, nitrous air, the oxyginous principle of the nitrous acid (viz. vital air without the matter of heat), another portion of the same principle which is one of the ingredients in water, with inflammable air, the other ingredient. In the nitrous acid, M. Lavoisier ascertains the proportional quantity of real acid and water, as well as of the gasses of which they are composed. By precipitating the iron from its solution with a caustic alkali, we procure martial æthiops, of which the quantity of vital air, or the oxyginous principle, is ascertained, and we procure also a neutral salt: then he enquires into the quantity of water, and of nitrous acid, which contributes to form it. We know exactly, by this operation, the quantity of water, nitrous acid, and æthiops martial, which contributed to form the metallic solution: we know what part of the oxyginous principle, combined with the iron to form the æthiops, is owing to the decomposition of the water, or to that of the nitrous acid, and consequently what quantities of inflammable and nitrous airs are separated in the operation. The proportion of the oxyginous principle, combined with the calx, is increased by giving the mixture a greater degree of heat; and if iron is added to the solution, it attacks the nitrous acid, and water still farther decomposes them, dissolves in the acid, under the form of martial æthiops, while the iron, formerly dissolved, takes up an additional

tional quantity of the oxyginous principle, and is deposited in the form of ocre.

In the Memoir, to determine the Quantity of Oxyginous Principle in Metallic Precipitates, the author converts only Bergman's ideas and language into his own. It may be useful for his followers.

The Memoir on the Combination of Iron with the Oxyginous Principle, is of more importance. *Aethiops martialis*, exposed to heat in free air, increases in weight, and becomes ocre: it has acquired a greater proportion of the oxyginous principle, and some fixed air. These are drawn off by being exposed to heat in close vessels, and it becomes *aethiops* again, without the fire having any farther action on it. In solution, the iron is in the state of *aethiops*, but the moment it acquires a superabundant quantity of the oxyginous principle, it becomes nearer to the state of ocre, less soluble in acids, and only attacked by alkalis. *Aethiops* is equally formed, whether filings of steel are mixed with water, vinegar, nitrous acid, or vitriolic acid, more or less concentrated. The oxyginous principle is sometimes owing to the water, and sometimes to the acid. With concentrated oil of vitriol it comes, for instance, from the acid; with diluted oil, from the water. Different kinds of iron increase more in weight from calcination than others, which depends on there being a less quantity of *aethiops* already formed in them. The increase of weight in any specimen will, in this way, allow us to form a just opinion of the quantity of this ingredient, previously existing. M. Lavoisier determines the source of the oxyginous principle from the air disengaged: when inflammable air appears, he concludes that it arises from the water. The operation of changing iron into steel depends on the formation of this *aethiops*. It will not succeed when the fluid does not furnish the peculiar principle. If tempered steel is dissolved in diluted vitriolic acid, the first strata, which are steel, give less inflammable air, and absorb less of the oxyginous principle, than the subsequent ones, which more nearly resemble iron. By considering steel as iron, in this state, all its peculiarities are well explained.

In the following Memoir, M. Lavoisier gives a table of the affinities of this principle; it contains twenty-five substances, and is incapable of abridgment.

In the Meteorological department is a Memoir, by M. le Monnier, on the opposite Current of Winds. It consists of a detail of observations on the course of two balloons, which rose at the same time, in the same place, and at different heights took very different directions. The historian concludes with deplored the fate of M. Pilatre de Rozier. May Mr. Heron be the last victim of this philosophical folly!

The first Memoir, on the subject of Analysis, relates to a provincial regulation of a local nature. The next is an Account of

of M. de la Place's new Method of Approximation. Every one knows that the use of approximation is chiefly to come near to those solutions which cannot be exactly ascertained. M. de la Place employs it in those questions which really admit of an exact answer, but which, from their extent, are almost impracticable : he employs it, for instance, where the powers to which the numbers are to be raised are very high, or the factors very numerous. In the usual cases they are useful, in the others indispensable. His method applies equally to quantities expressed by integers, whatever be their involution, or of the variable numbers, under the same signs, and to quantities given by any linear equations. The application of his calculus to probabilities, is one of its most immediate advantages ; for, in these enquiries, an apparently simple question can only be worked in a tedious way, which, by our academician's method, is greatly abridged. We have reason to expect, in a subsequent volume, other applications of the same method.

The last Memoir is a very intricate one : it teaches to estimate, at a given period, the value of sums to be received, at an indefinite number of times, at æras, depending on events, whose probability is only known by observation of similar events. The method is given in general formulæ, representing the value according to different hypotheses, on the best founded observations. Some other applications of these formulæ are omitted, as they do not depend on analysis.

The first Memoir, in the Astronomical department, is one that has been shortly mentioned in our Literary Intelligence, as a separate publication : it is by M. de la Place, on the figure of the planets. We can still only announce it, for it depends too much on calculation to enable us to abridge it.

M. du Sejour's application of analysis to astronomy, is equally incapable of being detailed in our Journal. His methods are applied to determine the parallax of the moon, and consist in a comparison of the observations of M. de la Caille, at the Cape of Good Hope, with those made at the same time in Europe, nearly under the same meridian. This has been justly thought to be the best method of ascertaining the parallax of this satellite.

The duration of a year seems to be a period which may be easily ascertained by various methods; but it is not so; and the ancient philosophers were puzzled by finding that it consisted of more than twelve, and less than thirteen lunations. The priests, who were the ancient astronomers, computed it, in round numbers, at 365 days : it was only about 2000 years ago that it was discovered (as M. de la Lande observes), that six hours should be added. This method is not quite exact; but Hipparchus fixed its duration to be, within about six minutes, the same as our academician : a wonderful instance of his genius and the accuracy of his observations ! If we enquire into the obser-
tions

tions of Hipparchus, and compare them with all the subsequent ones, we shall not err greatly by making the year $365^d 5^h 48' 48''$.

M. Cassini also gives an account of the observations made at the Observatory in the latter months of 1782. This academician had endeavoured to ascertain the obliquity of the ecliptic with exactness, together with its rate of variation; but, as some doubts had arisen relating to his calculations, he again examined his work with accuracy, and called in new observations to his assistance. He used the same instrument, and marking its errors, and allowing for them, he could correct his former observations and their results with equal precision. He went through this painful task with care, and found, that in fixing the obliquity of the ecliptic at $23^{\circ} 27' 55''$, he did not err above one second from the value given by his subsequent observations, after having made every necessary allowance. As the diminution of obliquity for a century had been made with the same instrument, during a period of thirty-five years, he found, on examination, additional reasons to be satisfied with its accuracy.—In the same Memoir we find Observations of the Opposition of Jupiter and that of Saturn; of Venus in the Time of her Aphelion; Eclipses of the Satellites and of the Moon, compared with the Stars. The Observations on Venus have shewn M. Cassini the necessity of determining, with more precision, the position of the stars; a work which he means to undertake and publish.

On the 17th of October, 1781, M. Messier observed an eclipse of the sun: on the 6th of November following he had a severe fall, and he could not return to his labours till the 12th of November, 1782, the day of the passage of Mercury over the sun. He gives an account of the eclipse, and deeply regrets the loss of more than a year in his astronomical life. The observations on Mercury in its passage over the sun, contained in this volume, were made at Paris, by messieurs de la Lande, Mechain, le Monnier, Messier, and de Cassini; at Roche Guyon, by the duke of Rochefoucault, M. Demaref, and the abbé Rochon. These Memoirs contain various other observations made by strangers.

Two comets were also discovered in 1781, by M. Mechain, who has calculated their elements, from having constantly observed them while they remained in sight. He calculated the one according to the common method, and the other according to that of M. de la Place, which seems to increase in the estimation of astronomers.

The vanity of nations is like that of females, and their historians think their credit connected with that of the nations whom they describe. The invention of the Zodiac is attributed by M. Dupuis to the Egyptians, by M. Gentil to the Indians. The figures on the Zodiac have been supposed allegorical: as the time of their establishment is unknown, the interpretations have

have been somewhat licentious, and only confined by the balance, which too obviously refers to an equality of days and nights to be separated from one of the equinoxes. M. Dupuis has proved that, by confining the balance to the spring, the rest of the signs answer properly to the course of agriculture among the Egyptians. M. Gentil endeavours to show, in the last Memoir, that, on the same supposition, they answer equally well to the labours of the Indians; and, as the Indians are the most ancient, to them he attributes the invention. Here the proof fails; but we believe him to be right, for in no work, decidedly Egyptian, can we meet with very profound marks of ingenuity and skill. Undoubtedly the signs of the Zodiac are rural allegories, and to be referred to the age of symbolical writing, among a nation subsisting by agriculture, in a country exposed to periodical inundations, about the time of the solstices. The historian thinks, from the proximity of the Indians and Egyptians, that either may have taught the other; but decides in favour of the Egyptians being the teachers, from a fact not well established, viz. that the Bramins were strangers, and brought their religion, with all its tricks, ready prepared to India.

The volume concludes with the usual lists of prizes and presents. The eulogies are on sir John Pringle, M. d'Anville, M. Bordenave, M. Bernoulli, M. de Montigni, M. Margraaf, M. du Hamel, and M. de Vaucanson. The extent of this article will not allow us to enlarge on their several merits: to our learned readers the characters of these gentlemen are well known; to others they might be uninteresting.

The volume of Memoirs for the year 1783 is just published at Paris: we hope to receive it very soon.

Voyage dans les Alpes, précédé d'un Essai sur l'Histoire Naturelle des Environs de Genève; par Horace Benedict de Saussure. Tom. 2. 4to. 3. and 4. in 8vo. Geneva and Paris.

TO give the earliest account, in our power, of a work long expected, at the same time to connect a philosophical description of the mountains of Switzerland with the more picturesque one of M. Bourrit, we have been induced to defer the continuation of Bergman. We hope it will not be delayed much longer. The publication of the last volume was at too great a distance, to be brought within the limits of our objects. The work has often occurred, in the course of our philosophical investigations, and to our casual description of its contents we are, of necessity, obliged to refer.

'The desire of rendering his work less imperfect, M. Saussure tells us, has retarded the publication of this volume.' Very different from the greater number of travellers, who make

bulky

bulky volumes about countries, through which they have travelled post, this very able author has told us nothing but what he has seen repeatedly. His excellent treatise on hygrometry, has, in some degree, compensated for the interval between the publication of his two volumes.

This volume contains the travels of the author, to the highest mountains of the Alps, viz. Mount Blanc, elevated two thousand four hundred and twenty-six toises above the sea, and to the adjacent mountains, whose height we have had occasion to describe. His descriptions are said, by a very competent evidence, who has travelled in his steps, to be very exact. M. Saussure went first from the priory of the valley of Chamouni to Montanvert, to gain the needles, or the highest points to the south-west of the valley, which end in Mount Blanc. We follow the author over seas of ice, over precipices, the ruins of mountains, and partake his danger with the most lively interest. ‘We must consider,’ says he, ‘that the mountains which terminate the valley of Chamouni, at the south-east, are composed of two distinct parts. The one is an uninterrupted mass, which rises from seven to eight hundred toises above the valley, which is itself five hundred and twenty-four toises above the level of the sea. The other part consists of pyramids, or detached needles, which rise above the mass. The inferior mass is composed of foliated rocks of different kinds, but most frequently of quartz and mica. These rocks are composed of very regular strata, which run in the course of the valley, from north-east to south-west. They are a little inclined towards the base of the mountain, but they rise gradually, till, at the top, they become vertical. These strata are more nearly like granite, as they approach to the top of the mountain, where there are veins of granite, or even granites in mass: the needles are of the latter kind. They are flanked with, and sometimes composed externally of, pyramidal flakes, which are subdivided in parallel strata, in the planes of the flakes.’ Lower in the valley, we find calcareous and gypseous masses.

Vertical strata are frequent in the Alps. M. Saussure believes that this is not the original direction, but that it is the consequence of the overturning of mountains; and he confirms his opinion, by the great masses of schistus filled with rounded shells, forming pudding-stones, of which vertical strata are found in the Valorsine. ‘Certainly says he, these pudding-stones cannot be formed in this perpendicular position.’ He thinks also, that certain fissures, which he found cutting these vertical strata at right-angles, were formerly themselves vertical, and changed by the same power which changed the direction of the other strata.

M. de Saussure, in his return from Chamouni, sought after the base of Mount Blanc on the other side. He penetrated through the whole defile, on the side of Cormayeur, and descended

Scended in the valley of Aoste, so far as Cavaglia, and returned by the St. Bernard. We regret, that we cannot follow him in all his journey; in every part he describes the objects which rise to his view: he is particularly attached to the mineralogy of these countries, and describes all the species of stones which he found. On the side of the glacier de Mitage he discovered green stones, which he tells us are horn-stones, not pure, but mixed with calcareous spar: on this subject he makes an excellent observation, which is worth repeating. Nature seldom offers in these high mountains homogeneous substances: the naturalist, who makes a collection in a city, searches for pieces most accurately characterized; but no such exist in the Alps: all is mingled together. A great part of these mountains are of schistus, but the schistus is mixed with quartz and mica: our author, on this account, often gives no name to the stones which he describes.

M. de Saussure saw at Courmayeur these micaceous quartzy schisti (the gneis of the Saxons) raised on argillaceous schisti. ‘ See now,’ says he, ‘ strata of rocks, styled primitive, resting on a kind of stone unanimously considered as secondary. Are the terms absurd, or are these appearances the effects of a convulsion? on this matter I cannot decide.’

He found, in the environs of St. Maurice, the petrofilex in a great mass, on the side of the valley; and on the other side, the feld spath is in great plenty. ‘ I consider these stones,’ adds he, ‘ as of the same nature. Their hardness, their density, and their fusibility, are nearly the same. They appear to contain, from analysis, the same principles, flint, clay, and iron; nearly too in the same proportions. M. de Saussure gives a variety and interest to his journey, by curious and important observations. The inhabitants of the higher ground, for instance, where the snow melts late, and returns early, so that they have seldom time for the corn to ripen, have the dexterity to hasten its melting three weeks. They observe that it melts sooner on the black earth, and they therefore collect this kind of earth, and strew it on the snow that covers the places, which they mean to till. Observation taught Dr. Franklin the same lesson; when he placed cloths of different colours on snow, he found the snow melt under them sooner or later, in proportion as they absorbed more or less light.

In the month of September, 1785, M. de Saussure, accompanied by M. Bourrit and his son, endeavoured to ascend Mount Blanc, on the side of the Needle du Gouté, but they could not reach farther than one thousand nine hundred toises, above the level of the sea. We have already mentioned M. Bourrit having made this attempt, and that two of his guides climbed up to the summit. ‘ For an hour that we stayed at the height of one thousand nine hundred toises, says M. de Saussure, the sun was so inconvenient, as to appear almost insupportable: yet it raised the thermometer only two degrees and

$\frac{1}{2}$. In the shade it was 2,5, in the sun 4,7*. The guides, strong countrymen, who bear the sun easily in the plain, experienced equal inconvenience at this height. It was not owing to the reverberations of the snow, for we were on an unconfined plain.' Our author explains it from the rarefaction of the air.

It is commonly thought, that the air on these high mountains is purer than on the plains. On the Mole, at the height of seven hundred toises, M. de Saussure filled bottles of air. This air, examined at Geneva by M. Senebier, was found less pure than that of the city. This confirms the observations of M. de Volta. The pure or vital air being more heavy than the inflammable, or phlogisticated airs, must be more frequently found in the lower parts of the atmosphere. M. Fontana, having examined the air, near the Hotel Dieu, found it nearly as pure as in the neighbouring fields.

M. de Saussure points out, in every part, the continual alterations in the mountains. The high pines are constantly mouldered away by the frosts, and their ruins fill the valleys. These remains are still found at great heights: M. de Saussure found rounded shells on the top of a mountain one thousand three hundred and eighty six toises above the present level of the sea. 'I thought myself, said he, on the shores of our lake (the lake of Geneva), and I fancied the waters filling all these depths, rolling and breaking the shells on which I trod, at my feet, while the pointed needles formed only little islands in the vast sea.' In another place he adds, this consideration unites with what I have before hinted, to prove that if the mountains, particularly the primitive ones, are of an antiquity so high as to elude the imagination, the present surface of our earth, its population, and its culture, are comparatively of a modern date.

Our author has made many curious observations on the electricity of the atmosphere, which appeared always more considerable on the mountains than in the plains. 'It is in general,' says he, 'strongest in the most elevated, and unconnected (isolés) places: it disappears in houses, under trees, in streets, in courts, and in general, in places inclosed on all sides. It is somewhat sensible in cities, in the middle of great squares, and principally on bridges, where I have found it stronger than in the open country.' In stormy or cloudy weather, it is very irregular; but in clear weather it seems to follow some laws. 'It is subject, like the sea, to an ebb and flow, which makes it increase and decrease, twice in twenty-four hours. Its greatest force is, some hours after the rising and setting of the sun; and its greatest weakness, some hours before the same periods.—This electricity is invariably positive,

* We suppose of Reaumur's thermometer; the corresponding numbers of Fahrenheit's instrument are nearly 37° and 47° ; a sufficient change, when sudden, to seem intolerable.

in winter and summer, day and night, sun or dew, at all times, when there are no clouds. It is impossible then not to believe with M. Volta, that the electricity of the atmosphere is essentially positive; and that the negative state arises only from some clouds, which, having been exposed to the pressure of the electric fluid, contained in the upper part of the atmosphere, or clouds above them, have discharged part of their electric fluid on the earth, or against other clouds, so that they remain only electrified in part.'

He then made experiments on the electricity of water reduced to vapour. He insulated the body on which the experiment is made, by placing on a brick, which rested on glass: the communication is made by a wire, with the electrometer. The results were these:

1. Water boiled in an insulated coffee-pot*, gave a negative electricity, as M. Volta had remarked.
2. Water thrown into a red-hot iron crucible, gave a positive electricity, but none at all when the crucible was of a bright red heat.
3. In a crucible of copper, the electricity was always positive.
4. In a crucible of silver, it was almost always negative; and it was suspected, that when it was otherwise, the difference was owing to the silver having too much alloy in it.
5. In a porcelain dish, it was always negative.
6. Spirit of wine, thrown into a silver crucible, almost at a white heat, gave a negative electricity, and sometimes none.
7. Æther gave the same appearances.
8. Water, in vapour without boiling, gives no electricity.
9. Burning different bodies was also attended with no electricity.

From these facts, M. de Saussure does not dare to draw any positive conclusion. 'It seems' says he, 'that, as porcelain and silver have always given a negative electricity, while copper and iron have almost always given it positive, we may conclude, that the electricity is positive with all those bodies capable of decomposing water, or (he adds with a becoming caution) of being decomposed themselves, when in contact with water, and negative with those which neither cause or suffer any alteration. I should be inclined then to look on the electric fluid as the result of the union of the element of fire with some other principle, not yet known. It must, in that case, be a fluid analogous to inflammable air, but much more subtle.' The candour and judgment of the author in this decision are remarkable: we need scarcely add, that it is supported by every view, in which this fluid has hitherto been presented to the mind of the philosopher.

* We suppose the coffee-pot was of white iron, or iron plates tinned; but its substance is not mentioned.

The vapours, which rise to form clouds, have not, however, been subjected to the heat of ebullition, and yet the clouds are electric. This leads M. de Saussure to suspect, that the clouds always convey electricity from the earth into the atmosphere, though his experiments make this system somewhat uncertain.

The different parts of this volume, which we have selected, will sufficiently show that it is worthy of the great and deserved reputation of the author. He was accompanied, in many of his journeys, by M. M. Trembley and Pietet, who greatly assisted him in his travels, particularly in his experiments relating to the height of the mountains. The volume is terminated by a memoir, on this subject, by M. Trembley.

We must add to our article, for we shall have no place more convenient for mentioning it, that M. Paccard, doctor in physic, who lives at Chamouni, reached the top of Mount Blanc the 8th of August last, accompanied by James Belma. He was seen, with a telescope, to fix a staff, to which a handkerchief was appended as a flag, on the proud summit of this almost inaccessible mountain. As the first philosophic knight who has achieved this great adventure, his name shall be recorded in our immortal volumes.

MONTHLY CATALOGUE.

P Y O T L I N T I I V C I A L.

Letters of Orellana. 8vo. Printed at Dublin.

Orellana is distinguished by the epithet of an *Irish Heret*; and his Letters are addressed to the Seven Northern Counties not represented in the National Assembly of Delegates, held at Dublin in October 1784, for obtaining a more equal Representation in Parliament. The Letters appear to have been written in the fervour of patriotism, and are much more remarkable for enthusiastic declamation than justness of sentiment. Orellana may have been deemed a persuasive orator by the multitude, in the hour of political intoxication; but the crisis being past, his Letters, we may venture to say, will now be read without exciting any great emotions in his countrymen, and, on this side of the Irish channel, we believe, with perfect indifference.

Outlines of a Plan for Patrolling and Watching the City of London. 8vo. 1s. Faulder.

The idea of this Plan is borrowed, almost entirely, without acknowledgment, from a pamphlet entitled 'Outlines of a Plan for protecting London and its Environs from the Depredations of House-breakers, Street and Highway Robbers.'

A Letter to the Committee of the Court of Common Council appointed to consider of the high Price of Provisions, on the Effects of the Excess of Copper Money now in Circulation, and the Disproportional Value that is set upon it. 8vo. 1s. Dilly.

It is the opinion of Mr. Merriman, the author of this Letter, that the dearness of provisions is occasioned by the excess of copper money at present in circulation. For, he observes, it is an invariable rule, that an increase in the quantity of any kind of coin decreases its value, and causes an advance in the price of every commodity which is purchased with such coin. But he thinks it is not in the general opinion only that our copper money is depreciated; the inequality in the proportion of the gold, silver, and copper coin of the kingdom, being, according to his idea, the principal grievance. It would, doubtless, be desirable, that the intrinsic value of the different coin should bear an exact proportion to each other; but so strict an adjustment as Mr. Merriman requires, would be a matter of great difficulty, on account of the constant fluctuation in the quantity of the respective metals. The nominal value, fixed by authority, might, we should imagine, be sufficient to prevent any inconvenience from the disproportion of the different coin, could the practice of counterfeiting be entirely restrained. But while this illegal practice prevails, there is certainly some foundation for the author's opinion; though we can hardly imagine that, even in the lower class of the people, such sums are often tendered in copper, as to produce the effect which he supposes.

D I V I N I T O Y.

The History of the Ministry of Jesus Christ, combined from the Narrations of the Four Evangelists. By Robert Willan, M. D. The Second Edition. 8vo. 3s. in Boards. Rivington.

As we gave a sufficient account of the author's design, in our Fifty-fifth Volume, page 309, it is unnecessary to repeat it, or our commendations. Numerous additions, and some important ones, render this edition peculiarly valuable. The additions are chiefly in the notes, for the original plan is preserved; and these are concise, useful, and instructive.

The Good and Righteous King. A Discourse delivered July 9, 1786, in the Surry Chapel, Black-Friars-Bridge, by the Rev. Mr. Venn, 8vo. 1s. Bew.

The text is from Isaiah, chap. xxx. ver. 1—4. The description of the King that shall reign in Righteousness, and the Prince that shall rule in Judgment, can belong only, according to our author, to the Messiah. There is no character which approaches so near to perfection; and to him are applied the metaphorical descriptions of the text, which, though pursued extensively, are followed by an application of still greater length.

We shall not enlarge on this sermon, since it is published, with variations, by one of the author's hearers; but we are not told whether the substance is given from recollection, or short-hand notes.

P. O B E T O R W Y D S *Music, Poetry, and Painting. Presenting an elegant Selection of the most approved Songs, Sonatas, &c. &c. with a thorough Bass for the Harpsichord. Under the Inspection of Mr. Joseph Olive, Organist of St. Botolph, Aldersgate. 4to. 1s. 6d. Fielding.*

It is enough to announce this publication, as the music only of some of the songs seems to be original. The songs in the first Number are chiefly of the pastoral kind, and the music is by Dr. Arne, Mr. Shaw, Mr. Olive, and Mr. Battishill. It is in general plaintive; and its style is soft and pleasing. As to the painting, it consists in coloured plates. The milk-maid truly tells us, in the second song, that she is milking her

‘Cow in a fine-coloured vale.’

It is fine-coloured indeed, but neither herself nor the vale are distinguished by the colours of nature.

The Conflagration: a Poem on the Last Day, in Four Parts. By Benjamin Francis. The Second Edition. 8vo. 1s. Buckland.

The poems of Young and Ogilvie, on this subject, have reflected honour on their respective authors. The present follows his predecessors with tottering and unequal steps. His diction is indeed sometimes majestic and sonorous, but at others, ‘rumbling, rough, and fierce.’ He sometimes verges on sublimity, but seldom or never attains to it.

Poems on several Occasions. Written in Pennsylvania. By William Moore Smith, Esq. 8vo. 2s. 6d. Dilly.

If an embargo had been laid on these poems, the literary world would have suffered little by it. From so distant an importation we naturally expected something ‘rich or rare,’ but were disappointed. Not that they are liable to any severe censure; they will not excite public attention by their excellency, nor create disgust through their defects. By the testimony of Pope, ‘mediocrity is a cold unpoetical virtue,’ and mediocrity in poetry, by that of Horace, no virtue at all

— ‘mediocribus esse poetis

Non homines, non Di, con concessere columnæ.’

We are entirely of his opinion. Either good or bad will afford scope for criticism; but mediocrity, to adopt father Shandy’s words, ‘is like a negative quantity in algebra, worse than nothing.’

D R A M A T I C.

Richard Cœur de Lion. An Historical Romance. From the French of Mons. Sedaine. As performing at the Theatre-Royal, Drury-Lane. 8vo. 1s. 6d. Debrett.

Richard was an able warriour, and a keen politician; a sagacious legislator, and an elegant poet: to see him then sunk into the hero of an opéra, to reflect that his praises are sung almost in the words of a rival nation; of a nation which he might have subdued, if he had not sought nobler triumphs from the defeat of the gallant Saladin, dims the splendour of the scene, and renders the harmony discordant. It may be from this cause, or from the defects of the performance, that we have received little pleasure from the opera before us: as a dramatic or poetical piece, it seems to have little merit: its splendour probably drew spectators, and its being fashionable, admirers. The story relates to the discovery of Richard's prison, and his delivery: these circumstances are sufficiently known, and they give somewhat which resembles propriety to the design of relating the tale partly in measure. The means of his deliverance are, however, poetical: and the parts which are thrown into song are so ill-chosen, as to render this piece, in many places, ridiculous.

N O V E L S.

The Happy Release; or, the History of Charles Warton and Sophia Harley. A Novel. In a Series of Letters. 3 Volumes. 12mo. 9s. 6d. Noble.

By an ingenious contrivance, this novel will continue to be a new one till the end of the next year; for it is dated in 1787, a method not peculiar to the editor, but so unreasonably extended, as to require being noticed with a slight reprimand. There is another error in the title-page; for, as a 'happy release' occurs in the first volume, we were tempted to lay down the book, in full confidence of having read every thing interesting in it: but the real, the important, *the happy release* occurs only, as it ought to do, in the denouement.

In other respects, this novel requires little to be said: there are several very good persons, and there are some villains, or these good people would not find employment. They labour in the usual style, through three volumes, and then the villains die or are reformed, and the good ones marry: a consummation that we devoutly wished for more early. It is on account of these undistinguishing features that we laboured to characterize these volumes from the peculiarities in the title; for every dabbler in natural history can tell us, that where there is great similarity, our distinctions must be taken from trifles which are useless, or from circumstances which are disgusting.

The History of Charles Falkland, Esq. and Miss Louisa Saville. In a Series of Letters. Two Volumes. 5s. Noble.

These volumes contain love, in excess, a due proportion of murder, unfaithful friends, and heroic constancy; yet with all these ingredients, we have seldom read any thing less interesting or affecting. The ahs! and ohs! leave sufficient openings for every particle of distress to escape.

The Cacique of Ontario. An Indian Tale. 4to. 1s. 6d. Fielding.

Our author professes, that ' his intention was to interest and amuse' his readers, and that he offers his ' performance with the utmost diffidence.' Professions so candid and modest deserve attention and respect. The Tale is an Indian one: the language is Ossianic, elevated above prose, without being raised on the stilts of fustian. We perceive a little too much of that modern affectation, of preferring the state of nature to the conveniences and advantages of refinement and civilization, but are compensated by the sudden unexpected changes, peculiar and not unsuitable to the people who act from the present impulse only. These changes are properly characteristic of the Indian nation, and add greatly to the merit of the tale.

Marano, an Englishwoman, taken by the Indians in her infancy, among the captives brought from the siege of Quebec, finds her brother. In that siege she had lost her husband. Her brother is but just restored when some of the Indians return, and tell her, that from his hand her husband, Oneyo, lost his life. The following conflict is described with energy and feeling.

The resentment of the assembly was again inflamed. "I am innocent of his blood," said the captive. But his declaration, and the entreaties of Ononthio in his behalf, were lost in furious screams and invectives. They dragged him again to the place of sacrifice. Marano distracted with contending woes, "Spare him! spare him!" exclaimed, "he is my brother!" Fixing her eyes on him with a look of exquisite anguish, "whose hands are red with the blood of my husband? and was there none but thee to destroy him?" "Tear him!" exclaimed the multitude. Marano clasped him to her bosom, and turning to the outrageous and menacing crowd, with a wild and frantic demeanour, "bloody, bloody though he be, I will defend him or perish! Let the same javelin transfix us both! Smite, and our kindred gore shall be mingled." The transcendent greatness of her calamity, who had lost a husband by the hand of a brother, and the resistless energy of her features, expressive of woe, tenderness, and despair, awed the violence of the assembly, and disposed them to pity. Ononthio took advantage of the change. He waved his hand with parental love and authority. His hoary locks gave dignity to his gesture. The usual benignity of his countenance was softened with sorrow. He spoke the language of his soul, and was eloquent; spoke the language of feeling, and was persuasive. They listened

listened to him with profound veneration, were moved, and deferred the sacrifice. He then comforted Marano, and conveyed the captives to a place of security.

Yet Oneyo at last returns; the Indian who related the story, only saw them engaged. He did not see that Oneyo received his life from the captive: he did not know that he was detained only by his wounds. These circumstances give a variety and relief; they add to the interest of the conclusion.

The Rambles of Fancy; or Moral and Interesting Tales. In Two Volumes. 12mo. 5s. sewed. Buckland.

These little Tales are really moral and interesting: the story is often conducted with skill, and the catastrophe frequently, perhaps too frequently, pathetic. If miss Peacock had not called them the *Rambles of Fancy*, we should have styled them too fanciful. The descriptions are romantic, the situations often improbable: instead of the scenes of nature, we are presented with magical groups of imaginary views. For the glaring scenery of romance, our young author loses the empire of nature, and is content to lose it. We regret this the more, as her knowledge of the human heart may enable her to penetrate its inmost recesses, and, from that source, to draw situations much superior to the hackneyed modes of introducing a father dying, bedewed with the tears of an affectionate child, and bereft of all other worldly possessions. We shall select one of those scenes, where her fancy rambles a little too far, not to leave an unfavourable impression on the reader, but to point out the rocks which we wish she would avoid. Yet it is the description of a wedding, a favourite subject with a young lady. May some kindred fair one describe her's with equal delicacy; may she delineate equally happy prospects, and may they be realized!

'The beauteous bride came forth arrayed in a robe of the purest lawn, which was clasped at the breast by a picture of her beloved Evander; her beautiful tresses were fastened by a knot of silver ribband; her cheek was tinged with Aurora's rosy dye; and her eye spoke ineffable softness. The youth was gracefully majestic; he was robed in purple, a golden vest shone beneath; and the bloom of youthful vigour was painted on his countenance; while joy sparkling in his eye, confessed the transports of his heart. Alonzo and Lycander were habited in the venerable robes of unaffected grandeur: they advanced towards the lovers, and placed on their brows wreaths; that of Lisetta's was the pale blushing rose; and Alonzo bound the temples of his son with fragrant myrtle. Beauteous children strewed their path with the treasures of Flora. The sun arose in full majesty, and brightened on the scene; while the soft morning zephyr borrowed fragrance from the ambrosial breath of Lisetta. The two lovely sisters, Cleora and myself, attended on the happy pair. Our roses were of the blushing hue, and chaplets of

of amaranths bound our brows. Thus we proceeded to the temple, where the indissoluble knot was tied. When we left the temple, a band of delightful music saluted us, from graceful youths and virgins, habited as shepherds and shepherdesses. As we returned to the castle, we perceived a number of beautiful children dancing on the banks of a sweetly-murmuring stream : at our approach one of them advanced, and presented the blushing bride with a nosegay composed of the most simple flowers, yet so elegantly arranged as to produce a pleasing effect ; the rest followed her example, and paid the same compliment to the company.'

Our author's former work was mentioned in our Sixtieth Volume, p. 221. She seems emerging from fairy-land, and will soon, we hope, speak the language of nature and reality. If we were to discriminate the merit of these Tales, we should think the scenes described in the Letters the best. We were more offended with the American Tale, on account of the numerous mistakes in natural history. It is no fault in miss Peacock not to have understood this science ; but it was a misjudged attempt to lay the scene in that country.

Zoriada; or, the Village Annals. A Novel. In Three Volumes.
12mo. 7s. 6d. Axtell.

One of our associates, the natural historian, a great admirer of systems, and an idolater of Linnæan definitions, contends that every work is a species, and may be exactly characterised in the concise language of the naturalists. If this scheme be ever conveniently followed, it must be in the work before us : let us try.

Genus, Novel ; Species N. Zoriada, three volumes, ill-written, worse printed ; without ingenuity, novelty, or pathos.

We are aware that the whole tribe of philosophers will rise in judgment against us, and say that the same character belongs to almost every production of the present novellists ; besides, that negative characteristics are always excluded from every definition. But, not to enter into a long defence of our's, we shall only say that, though novels are frequently written with little accuracy, they are seldom printed with less. Take a few errors within about twenty-five pages. ' Sophy' for sophia ; ' instructively' for instinctively ; ' instructed' for intrusted ; ' vigour' for rigour ; ' bears' for terms ; ' definish' for define ; ' prison' for prism ; ' gilt' for built. If the young novelist be not very well *intrusted*, how will the race of mal-aprops be increased in number ? But perhaps it requires some *instructive* knowlege to explain ' arcanum nonsense,' or to say that ' will, dreading' was intended for with-drawing. If the author does not soon publish a key, we fear his treasures will not be easily unlocked ; but do not be in a hurry, fair lady, there is nothing in the chest worth your attention.

MISCELLANEOUS.

Enquiry into the Influence which Enclosures have had upon the Population of this Kingdom. By the Rev. J. Howlett. 8vo. 1s. Richardson.

This is the second edition of a work which we reviewed in our last volume, p. 393; and we are well pleased to see that it has been received with so much attention, that another impression is required. We hope it will induce the author to pursue the subject, to which, in our opinion, very great attention ought to be paid, and which has already been greatly elucidated by his labours.

The Appendix, which consists of a Letter from a clergyman in Shropshire, minister of one of the inclosed parishes, is a plain, simple, and judicious narrative. Since 1689, the numbers in his parish are nearly doubled; and yet this parish seems rather to have assisted the population of its neighbours than to have derived inhabitants from them. All the parishioners are engaged in agriculture, without any manufactures of any kind, which renders the increase a subject of greater importance.

There is another part of the observations which seems uncommon. The baptisms, in two distant periods, are more than as 2 to 1, but the marriages are not more than as 1½ to 1. We must beg leave to ask the rector (we are absolutely serious) whether the women are more fruitful, or his parishioners more licentious? We make the observation for this reason, because, in general the increase, in consequence of marriages, does not appear in other lists to be in so great a proportion during the last forty years, as during any equal former period.

An exact Representation of the very uncandid and extraordinary Conduct of Dr. John Coakley Lettsom, as well previous to, as on, the Day of Election for Physician to the Finsbury Dispensary. With some Remarks on the Establishment of the New Finsbury Dispensary. By Thomas Skeete, M.D. 8vo. 6d. Fielding.

A Vindication of Dr. Lettsom's Conduct, relative to the Election at the Finsbury Dispensary. In a Letter from J. C. Lettsom, M.D. to S. Hinds, M.B. 8vo. 6d. Fielding.

These are unpleasing subjects to engage in. The Critical Review is not a court to canvass points of honour, to weigh the exact force of a promise, or to assign each person his proportion of moral honesty. Institutions of charity are too much the tools of party; and those who have found them such convenient assistants will be most ready in rendering them useful to others: Medicine was once a *liberal science*. Alas! how changed, how fallen! If not changed, how little influence has it on its professors!

A com-

A complete Compendium of the Militia Laws of England and Wales.
12mo. 1s. Ridgway.

The only recommendation which can be given to a work of this kind is on the score of its accuracy, and we have reason to think this abridgment very exact.

A few Remarks on an Address to the Roman Catholics of the United States of America, occasioned by a Letter addressed to the Catholics of Worcester, by Mr. Wharton, their late Chaplain. By the Right Rev. Dr. Carroll. By a Fair Inquirer. 8vo. Printed at Worcester.

The title is not very intelligible. The Address to the Roman Catholics of America was written by Dr. Carroll, and it was occasioned by Mr. Wharton's Letter to the Roman Catholics of Worcester, which gave a candid account of the motives which induced him to conform to the church of England *: These few Remarks are written by the ' Fair Enquirer :' they consist of detached observations on Dr. Carroll's work ; and we suspect the Fair Enquirer to be Mr. Hawkins. It is enough for us to observe, that Dr. Carroll (now a Roman Catholic bishop in America), endeavoured to prevent the infection of conformity, which might have been spread by Mr. Wharton's Letter, and proved injurious to the cause of their great and good allies, that these Remarks are intended to show their weakness, their futility, and inaccuracy.

A plain and concise Apology for the Permission of Natural and Moral Evils in a State of Trial. By the Rev. John Wedder. Second Edition. 8vo. 1s. Rivington.

We do not remember to have seen this Apology, at least in its present form, though we recollect the arguments, and remember that they have been somewhere applied to a similar purpose. Perhaps the former edition may have had another title, and, by that means, has eluded our search. The title explains the tendency of the work. If this be a state of trial, the author argues, that there must be a choice of good and evil ; and that man be permitted to choose. The author's purpose seems to be good, his heart benevolent, and his language neat and easy. On the force of the argument we shall not at present decide : it includes points of great magnitude, which, within our limits, would not be easily, and, in a work like this, perhaps cannot be fully discussed.

A Descriptive Journey through the interior Parts of Germany and France, including Paris : with interesting and amusing Anecdotes. Small 8vo. 2s. Kearsley.

We have some suspicion, that this Journey is the genuine production of a forward young man ; but the vulgar style of

* Crit. Rev. vol. lix. p. 159.

the language, some of its errors, and many of its inelegancies, prevent us from believing that it is the work of the nobleman which the title hints at. A man of elegance and proper education would not ‘take his oath’ of any thing ; become, ‘at once, gracious’ with a stranger ; offer his ‘infallible receipt’ for a certain disease to a gentleman and lady ; ‘make a *scrape* with a pen-knife,’ &c. The affectation of tender feelings may not be uncommon at that age ; but it would not admit of ‘the *tenderest friendship a few years before*.’

The Journey is a trite superficial account of places frequently seen, and as often described : it is at the same time lively, and not unentertaining. We shall select a specimen : the abbé, who was probably a man of the world, seems to have been disgusted with the young traveller’s forwardness, and to have showed his displeasure by contempt. An *abbé*, our author ought to have known, could not be materially affected by the destruction of a few convents ; but self-love often shuts our eyes, and leads us to attribute events to any cause rather than neglect.

‘In the town [Mayence] there is one principal inn, and the *table d’hôte* is excellent. One day, at dinner, some conversation led me to tell an *abbé*, who sat next me, how much I loved the emperor, and that I always carried his portrait about me. His answer was only—“Pray, sir, are you a subject of the emperor’s?”—‘No, sir, I am a British subject.’ He licked the juice of his strawberries with a crumb of bread, snored a pinch of snuff, wiped his nose with the back of his fist and, after a grim look or two of manifest displeasure, pushed back his chair, and walked off. I have been, on all occasions, industrious to move a conversation about the emperor, in order to feel the pulse of the country about his character ; and the fact is, he is in general hated. His innovations in religious matters, they, with the world, approve of ; but his mode of effecting them is considered as a rapacious monopoly on the rights of free-born subjects, degrading to the character of a monarch, and dangerous for his personal safety. What does a desperate individual matter his life, kicked out of the lap of affluence and ease, to drag a life of misery and distress, to exist on a starved pittance of twelve or eighteen pounds a year, after sharing long in the rich foundations and estates left to that very convent, perhaps by his own ancestors ? The oppression, the tyranny of it, is the common groan of injured humanity ! There are actually, at Vienna, clergymen employed in translating the Mass into the German language. All the princes of the empire are making alterations, and following his steps, but moderately and justly. Even France herself begins to hearken to the common cry of good sense, and liberty of thought. The count de Mirabeau, a Frenchman, has written, with a vast deal of energy and good argument, against the emperor’s conduct, particularly on the subject of the rupture with Holland, and contributed to tarnish that éclat that seemed to dawn on his character.’

Account of the Association for a Periodical Tontine. 8vo. 6d.
Southern.

The plan of this Association is to open subscriptions, annually, for seven classes of ages, in shares of one hundred pounds. All these are to be vested in old South-sea annuities, to form a joint stock for the yearly benefit of each respective class. The accumulating interest of this money is to be regularly paid to the living subscribers for a determined time; after which the capital is to be divided among the survivors. The same plan is likewise proposed to subscribers of fifty pound shares.

The Life and Transactions of Margaret Nicholson. By Jonathan Fiske. 8vo. 1s.

This unfortunate woman had lodged upwards of three years with Mr. Fiske, who may, therefore, be supposed to have had an opportunity of becoming acquainted with her history and character.

Fielding's Hackney-Coach-Rates. 12mo. 2s. Fielding.

This pamphlet contains near twenty thousand fares, specifying the distance and price, agreeable to the late act of parliament. It also comprises the rates of hackney-chairs, and fares of watermen, as regulated by authority. It therefore cannot fail of being useful to persons residing in the capital or its environs.

The Parish Officer's Companion; or, a new and complete Library of Parish Law. 12mo. 2s. 6d. Lister.

This is a collection, fabricated chiefly from Burn's Justice, and the Complete Constable. Though containing a few things not met with elsewhere, it is deficient in some others; and is badly printed on coarse paper.

Memoirs of a French Officer, who escaped from Slavery. Small 8vo. 2s. 6d. Rivingtons.

The officer who is the subject of these Memoirs, was shipwrecked on the coast of Africa, where he remained a long time in the capacity of a slave, until at last he was, with several of his unfortunate companions, set at liberty by the interposition of the vice-consul of France. The distresses which he suffered during his captivity, and the manners of the savages, are described in a lively manner; and afford a natural representation of such scenes as no person can ever desire to be farther acquainted with, than by narrative. There is a distant resemblance between these Memoirs and the celebrated history of Robinson Crusoe.

Captain Cook's third and last Voyage to the Pacific Ocean, in the Years 1776, 1777, 1778, 1779, and 1780. Faithfully abridged from the Quarto Edition published by Order of his Majesty. Illustrated with Copper-plates. 12mo. 4s. bound. Fielding.

We have looked at different parts of this abridgment, and it seems well enough calculated for amusement; but, not being accompanied with a map, every purpose of information or utility is effectually precluded. We conclude that it is published as a proper Christmas entertainment, to make the masters and misses wonder at uncouth figures, and uncommon dresses.

C O R R E S P O N D E N C E.

To the EDITOR of the CRITICAL REVIEW.

SIR,

'The TABLE OF CONTENTS which you prefix to each Volume of the Critical Review, though it may be of some small use, appears to me to be very unnecessary, as it might be superseded by the INDEX at the end, which I observe is very full (as all Indexes ought to be), and well executed. But this contains nothing more than the titles of books, and authors names. I would propose, as an improvement to your plan, and it would certainly be an improvement which would ensure the approbation of every reader, that you would appropriate the three leaves on which you enumerate the *Contents*, to a 'TABULA INDICATORIA; or, an Alphabetical Table of the most remarkable Passages in the Criticisms and Extracts in the Volume;' or any other title you please, upon this, or a similar plan. It would make the Volumes much more entertaining and useful; as readers often want to refer to remarks and observations met with in the course of reading, which it is not easy, and often almost impracticable to find, for want of such assistance. I propose the above in preference to the method adopted by the Monthly Review, because *three leaves*, though sufficient to contain an Index of the most material passages, would not be enough for the Index which you give at the end of the Volumes, and which certainly should be continued.'

The Foreign Literary Intelligence, which you have lately resumed, upon an improved plan, is certainly a valuable addition to the Reviews, as it comprehends, in a small compass, a great variety of very useful information. And I have no doubt but in time you will be very sensible of it, by an increased sale.

I hope, sir, as the improvement herein proposed is of a nature that can offend none, and may be highly gratifying to almost every reader of the Review, you will take it into your consideration, and adopt it at the conclusion of the present, and every future Volume.

13th October, 1786.

I am, Sir, &c.

Give

Give me leave to add, by way of postscript, that your account of Medical Books (not only in my opinion, but in that also of an extensive correspondence), is conducted on a plan which does no less credit to the Review than advantage to the medical practitioners; by whom it is at present regarded as the only Review we now have that professedly considers those publications. The writers of those articles appearing to be real practitioners, adds not a little to the value of their opinions.'

THIS gentleman's obliging attention not only demands our thanks, but every return of information which we can bestow. His proposed plan shall be very particularly considered, and we will endeavour to deserve the good opinion of himself and friends, by rendering our Articles and our Intelligence * as various and as instructive as we are able. He will excuse us for having omitted some parts of his Letter, though we perhaps may, in his opinion, want excuse for having published so much of it. Though highly flattering to ourselves, we own we had another reason for it: to draw the attention of the public to what we consider as a valuable improvement. Lest he should be displeased at being drawn too precipitately into public, we have concealed his name; and the delicacy of our situation will we hope apologize for the other omissions. The works he mentions will be attended to very soon: they were overlooked by an accident.

WE are much obliged to Mr. H—— for his very kind communication, and greatly regret that we may probably be deprived of his more extended details. If, however, he will allow us to suggest a plan, probably not attended with the inconveniences he mentions, it would be to select the facts and the tables, with the necessary explanations only. A publication of this kind will not be so extensive as that which he describes; and its sale will not depend on a passion so frivolous as curiosity. It must be the foundation of every future political enquiry; and, as it is established on facts, must remain unshaken amidst the tumults of contending parties.

WE thank the gentleman who styles himself 'No Critic,' for a work which might not have occurred in our usual walks, since it seems not to have been published in London. We shall be more obliged to him for a key to his observations, which are really at present unintelligible. Is the application of chemistry to the examination of medical waters useless? If so, the work forwarded to us *may* be useful. Nous verrons.

* As we wish to make this part of our work of real importance, we should be obliged to our readers for their opinions on the conduct of it.

